

	Subject to Completion Preliminary Term Sheet dated September 17, 2025	Filed Pursuant to Rule 424(b)(2) Registration Statement No. 333-284538 (To Prospectus dated February 14, 2025, Prospectus Supplement dated February 14, 2025 and Product Supplement No. EQUITY MLI-2 dated February 14, 2025)
--	--------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

This term sheet, which is not complete and may be changed, relates to an effective Registration Statement under the Securities Act of 1933. This term sheet and the accompanying product supplement, prospectus supplement and prospectus are not an offer to sell these notes in any country or jurisdiction where such an offer would not be permitted.

Units
\$10 principal amount per unit
CUSIP No. 36272A169



Pricing Date* September , 2025
Settlement Date* September , 2025
Maturity Date* December , 2026

*Subject to change based on the actual date the notes are priced for initial sale to the public (the "pricing date")

GS Finance Corp.

Medium-Term Notes, Series F
guaranteed by The Goldman Sachs Group, Inc.

Accelerated Return Notes[®] Linked to a Basket of Five Stocks

- Maturity of approximately fourteen months
- 3-to-1 upside exposure to increases in the Basket, subject to a capped return of [28.00% to 32.00%]
- 1-to-1 downside exposure to decreases in the Basket, with 100% of your investment at risk
- The Basket will be comprised of the Class A common stock of Alphabet Inc., the common stock of Broadcom Inc., the Class A common stock of Meta Platforms, Inc. (formerly Facebook, Inc.), the common stock of NVIDIA Corporation and the Class A common stock of Palantir Technologies Inc. (each, a "Basket Component"). Each Basket Component will be given an equal weight.
- All payments occur at maturity and are 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.
- No periodic interest payments
- Limited secondary market liquidity, with no exchange listing.

The notes are being issued by GS Finance Corp. ("GSFC") and are fully and unconditionally guaranteed by The Goldman Sachs Group, Inc. ("GSG"). Investing in the notes involves a number of risks. There are important differences between the notes and a conventional debt security, including different investment risks and certain additional costs. See "Risk Factors" beginning on page TS-9 of this term sheet and page PS-7 of the accompanying product supplement, "Considerations Relating to Indexed Notes" beginning on page S-11 of the accompanying prospectus supplement and "Considerations Relating to Indexed Securities" beginning on page 101 of the accompanying prospectus.

The estimated value of your notes at the time the terms of your notes are set on the pricing date is expected to be between \$9.25 and \$9.55 per \$10 principal 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.

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 Note 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.

	Per Unit	Total
Public offering price	\$ 10.00	\$
Underwriting discount ⁽¹⁾	\$ 0.125	\$
	\$ 0.05	
Proceeds, before expenses, to GSFC ..	\$ 9.825	\$

⁽¹⁾ The underwriting discount reflects a sales commission of \$0.125 per note and a structuring fee of \$0.05 per note.

The notes and the related guarantee:

Are Not FDIC Insured	Are Not Bank Guaranteed	May Lose Value
----------------------	-------------------------	----------------

Goldman Sachs & Co. LLC

September , 2025

Summary

The Accelerated Return Notes[®] Linked to a Basket of Five Stocks, due December , 2026 (the “notes”) are our senior unsecured debt securities. Payments on the notes are fully and unconditionally guaranteed by GSG. The notes and the related guarantee are not insured by the Federal Deposit Insurance Corporation or secured by collateral. **The notes will rank equally in right of payment with all of GSFC’s other unsecured and unsubordinated obligations, except obligations that are subject to any priorities or preferences by law, and the related guarantee will rank equally in right of payment with all of GSG’s other unsecured and unsubordinated obligations, except obligations that are subject to any priorities or preferences by law, and senior to its unsubordinated obligations. Any payments due on the notes, including any repayment of principal, will be subject to the credit risk of GSFC, as issuer, and GSG, as guarantor.** The notes provide you a leveraged return, subject to a cap, if the Ending Value is greater than the Starting Value. If the Ending Value is less than the Starting Value, you will lose all or a portion of the principal amount of your notes. Any payments on the notes will be calculated based on the \$10 principal amount per unit and will depend on the performance of the Market Measure, which is the basket described below (the “Basket”), subject to our and GSG’s credit risk. See “Terms of the Notes” below.

The Basket will be comprised of the Class A common stock of Alphabet Inc., the common stock of Broadcom Inc., the Class A common stock of Meta Platforms, Inc. (formerly Facebook, Inc.), the common stock of NVIDIA Corporation and the Class A common stock of Palantir Technologies Inc. On the pricing date, each Basket Component will be given an equal weight.

The economic terms of the notes are based upon 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 variables will influence the economic terms of the notes and the initial estimated value of the notes on the pricing date. In addition, the underwriting discount and costs incurred in creating, documenting and marketing the notes will reduce the economic terms of the notes and the initial estimated value of the notes on the pricing date. For more information, see “Risk Factors — Valuation- and Market-related Risks — The estimated value of your notes at the time the terms of your notes are set on the pricing date (as determined by reference to pricing models used by GS&Co.) is less than the public offering price of your notes.” on page TS-9 of this term sheet.

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 term sheet, 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 Note 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 Note 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 Note 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 pricing 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 \$9.25 and \$9.55 per \$10 principal amount, which is less than the public offering 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 principal amount).

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

Minimum Purchase Amount of Notes Offered Hereby

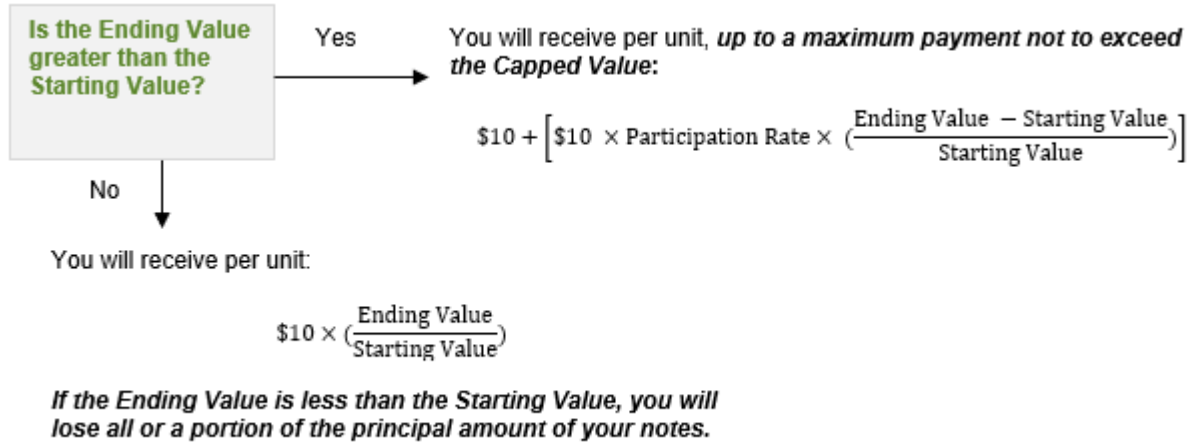
In connection with the initial offering of the notes, the minimum principal amount of notes that may be purchased by any investor is \$100,000.

Terms of the Notes

Company (Issuer):	GS Finance Corp. (“GSFC”)
Guarantor:	The Goldman Sachs Group, Inc. (“GSG”)
Term:	Approximately fourteen months.
Market Measure:	An equally weighted basket comprised of the Basket Components, as set forth in the table under “The Market Measure” below (each, a “Basket Component,” and collectively the “Basket Components”). For each Basket Component, its current Bloomberg ticker, current primary listing, Initial Component Weight, Closing Market Price on the Pricing Date, Component Ratio and Initial Basket Value Contribution are set forth in the table under “The Market Measure” below.
Principal Amount:	<p>\$10.00 per unit; \$ in the aggregate on the settlement date; the aggregate principal amount may be increased if the Company, at its sole option, decides to sell an additional amount on a date subsequent to the pricing date.</p> <p>On the maturity date the Company will pay, for each \$10 of the outstanding principal amount, an amount, if any, in cash equal to the Redemption Amount.</p>
Redemption Amount:	<p>On the maturity date the Company will pay, for each \$10 of the outstanding principal amount, an amount, if any, in cash equal to:</p> <ul style="list-style-type: none"> ▪ If the Ending Value is greater than the Starting Value: $\\$10 + \left[\\$10 \times \text{Participation Rate} \times \left(\frac{\text{Ending Value} - \text{Starting Value}}{\text{Starting Value}} \right) \right]$, subject to the Capped Value ▪ If the Ending Value is equal to or less than the Starting Value: $\\$10 \times \left(\frac{\text{Ending Value}}{\text{Starting Value}} \right)$
Starting Value:	The Starting Value will be set to 100.00 on the pricing date.
Ending Value:	The <i>sum</i> of, for each Basket Component: the <i>product</i> of (i) the Closing Market Price of such Basket Component on the Final Calculation Day <i>times</i> (ii) the Price Multiplier of such Basket Component on the Final Calculation Day <i>times</i> (iii) the Component Ratio of such Basket Component. If a Market Disruption Event or non-Market Measure Business Day occurs as to any Basket Component on the scheduled Final Calculation Day, the Closing Market Price of that Basket Component will be determined as more fully described in the section entitled “Description of the Notes—Baskets—Value of the Basket” on page PS-41 of the accompanying product supplement.
Participation Rate:	300%
Capped Value:	[\$12.80 to \$13.20] per unit, which represents a return of [28.00% to 32.00%] over the principal amount. The actual Capped Value will be determined on the pricing date.
Final Calculation Day/Maturity Valuation Period:	Approximately the fifth scheduled Market Measure Business Day immediately preceding the maturity date, subject to postponement in the event of Market Disruption Events and non-Market Measure Business Days, as described beginning on page PS-25 of the accompanying product supplement.
Maturity Date:	December , 2026, subject to postponement as described beginning on page PS-25 of the accompanying product supplement.
Component Ratio:	With respect to each Basket Component, the <i>quotient</i> of (i) the <i>product</i> of (a) the Initial Component Weight for such Basket Component set forth in the table under “The Market Measure” below <i>times</i> (b) 100 <i>divided</i> by (ii) the Closing Market Price of such Basket Component on the pricing date, with the result rounded to eight decimal places.
Price Multiplier:	For each Basket Component, 1, subject to adjustments for certain corporate events relating to such Basket Component described beginning on page PS-35 of the accompanying product supplement.
Fees and Charges:	The underwriting discount of \$0.175 per unit listed on the cover page
Calculation Agent:	Goldman Sachs & Co. LLC. (“GS&Co.”), an affiliate of GSFC.
Authorized Denominations:	\$10 or any integral multiple of \$10 in excess thereof.
Overdue Principal Rate:	The effective Federal Funds rate.
Defeasance:	Not applicable.

Redemption Amount Determination

On the maturity date, you will receive a cash payment per unit determined as follows:



Accelerated Return Notes[®]

Linked to a Basket of Five Stocks, due December , 2026

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

- Product supplement no. EQUITY MLI-2 dated February 14, 2025:
https://www.sec.gov/Archives/edgar/data/886982/000095017025021518/baml_supplement_gs_2025_.htm
- Prospectus supplement dated February 14, 2025:
<https://www.sec.gov/Archives/edgar/data/886982/000119312525027380/d891153d424b2.htm>
- Prospectus dated February 14, 2025:
<https://www.sec.gov/Archives/edgar/data/886982/000119312525027379/d860775d424b2.htm>

These documents (together with this term sheet, the “Note Prospectus”) have been filed as part of a registration statement with the SEC, which may, without cost, be accessed on the SEC website at www.sec.gov or from Merrill Lynch, Pierce, Fenner & Smith Incorporated (“MLPF&S”) by calling 1-800-294-1322. Before you invest, you should read the Note Prospectus, including this term sheet, for information about us, GSG and this offering. Any prior or contemporaneous oral statement and any other written materials you may have received are superseded by the Note Prospectus. Certain terms used but not defined in this term sheet have the meanings set forth in the accompanying product supplement.

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

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

The notes will be issued in book-entry form and represented by master note no. 3 dated March 22, 2021. References herein to “final calculation day” shall be deemed to refer to “determination date” in such master note no. 3, dated March 22, 2021.

Investor Considerations

You may wish to consider an investment in the notes if:

- You anticipate that the value of the Market Measure will increase moderately from the Starting Value to the Ending Value.
- You are willing to risk a loss of principal and a negative return on the notes if the value of the Market Measure decreases from the Starting Value to the Ending Value.
- You accept that the return on the notes will be capped.
- You are willing to forgo the interest payments that are paid on conventional interest-bearing debt securities.
- You are willing to forgo dividends or other benefits of owning shares of the Basket Components.
- You are willing to accept a limited or no market for sales of the notes prior to maturity, and understand that the market prices for the notes, if any, will be affected by various factors, including our and GSG's actual and perceived creditworthiness, our credit spreads and fees and charges on the notes.
- You are willing to assume our credit risk, as issuer of the notes, and GSG's credit risk, as guarantor of the notes, for all payments under the notes, including the Redemption Amount.

The notes may not be an appropriate investment for you if:

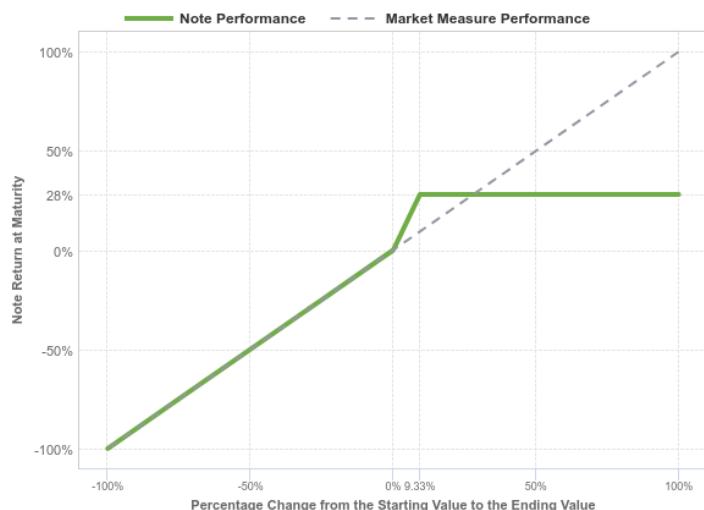
- You believe that the value of the Market Measure will decrease from the Starting Value to the Ending Value or that it will not increase sufficiently over the term of the notes to provide you with your desired return.
- You seek an uncapped return on your investment.
- You seek principal repayment or preservation of capital.
- You seek interest payments or other current income on your investment.
- You want to receive dividends or other distributions paid on the shares of the Basket Components.
- You seek an investment for which there will be a liquid secondary market.
- You are unwilling or are unable to take market risk on the notes, to take our credit risk, as issuer of the notes, or to take GSG's credit risk, as guarantor of the notes.

We urge you to consult your investment, legal, tax, accounting, and other advisors before you invest in the notes.

Hypothetical Payout Profile and Examples of Payments at Maturity

The below graph is based on **hypothetical** numbers and values.

Accelerated Return Notes®



This graph reflects the returns on the notes, based on the Participation Rate of 300% and a Capped Value of \$12.80 per unit (the bottom of the Capped Value range). The green line reflects the return on the notes, while the dotted gray line reflects the return of a direct investment in the Basket Components, excluding dividends.

This graph has been prepared for purposes of illustration only.

The following table and examples are for purposes of illustration only. They are based on **hypothetical** values and show **hypothetical** returns on the notes. They illustrate the calculation of the Redemption Amount and return based on a hypothetical Starting Value of 100, the Participation Rate of 300%, a Capped Value of \$12.80 (the bottom of the Capped Value range) per unit and a range of hypothetical Ending Values. **The actual amount you receive and the resulting return will depend on the actual Starting Value, Ending Value, Capped Value and whether you hold the notes to maturity.** The following examples do not take into account any tax consequences from investing in the notes.

In addition, the following table and redemption amount calculation examples do not show that, in calculating the Ending Value, changes in the prices of one or more of the Basket Components may be offset by changes in the prices of one or more of the other Basket Components. See “Risk Factors — Structure-related Risks — If your notes are linked to a Basket, changes in the values of one or more of the Basket Components may be offset by changes in the values of one or more of the other Basket Components.” on page PS-8 of the accompanying product supplement.

For hypothetical historical values of the Basket, see “The Market Measure” section below. For recent actual prices of the Basket Components, see “The Basket Components” section below. All payments on the notes are subject to issuer and guarantor credit risk.

Ending Value	Percentage Change from the Starting Value to the Ending Value	Redemption Amount per Unit	Return on the Notes
0.00	-100.00%	\$0.00	-100.00%
50.00	-50.00%	\$5.00	-50.00%
80.00	-20.00%	\$8.00	-20.00%
90.00	-10.00%	\$9.00	-10.00%
94.00	-6.00%	\$9.40	-6.00%
97.00	-3.00%	\$9.70	-3.00%
100.00 ⁽¹⁾	0.00%	\$10.00	0.00%
102.00	2.00%	\$10.60	6.00%
105.00	5.00%	\$11.50	15.00%
109.34	9.34%	\$12.80 ⁽²⁾	28.00%
110.00	10.00%	\$12.80	28.00%
120.00	20.00%	\$12.80	28.00%
130.00	30.00%	\$12.80	28.00%
140.00	40.00%	\$12.80	28.00%
150.00	50.00%	\$12.80	28.00%
160.00	60.00%	\$12.80	28.00%

(1) The Starting Value will be set to 100.00 on the pricing date.

(2) The Redemption Amount per unit cannot exceed the hypothetical Capped Value.

Redemption Amount Calculation Examples

Example 1

The Ending Value is 80.00, or 80.00% of the Starting Value:

Starting Value: 100.00

Ending Value: 80.00

$$\$10 \times \left(\frac{80}{100}\right) = \$8.00 \text{ Redemption Amount per unit}$$

Example 2

The Ending Value is 102.00, or 102.00% of the Starting Value:

Starting Value: 100.00

Ending Value: 102.00

$$\$10 + \left[\$10 \times 300\% \times \left(\frac{102 - 100}{100}\right) \right] = \$10.60 \text{ Redemption Amount per unit}$$

Example 3

The Ending Value is 130.00, or 130.00% of the Starting Value:

Starting Value: 100.00

Ending Value: 130.00

$$\$10 + \left[\$10 \times 300\% \times \left(\frac{130 - 100}{100}\right) \right] = \$19.00, \text{ however, because the Redemption Amount for the notes cannot exceed the Capped Value, the Redemption Amount will be } \$12.80 \text{ per unit}$$

Risk Factors

An investment in your notes is subject to the risks described below, as well as the risks and considerations described under “Risk Factors” beginning on page PS-7 of the accompanying product supplement, “Considerations Relating to Indexed Notes” beginning on page S-11 of the accompanying prospectus supplement and “Considerations Relating to Indexed Securities” beginning on page 101 of the accompanying prospectus. You should carefully review these risks and considerations as well as the more detailed explanation of risks described in the accompanying prospectus, the accompanying prospectus supplement and the accompanying product supplement. You should also review the terms of the notes described herein and in the accompanying prospectus, the accompanying prospectus supplement and the accompanying product supplement. Your notes are a riskier investment than ordinary debt securities. The notes are not an appropriate investment for you if you are not knowledgeable about significant elements of the notes or financial matters in general. We also urge you to consult your investment, legal, tax, accounting, and other advisors before you invest in the notes. Also, your notes are not equivalent to investing directly in the Basket Components.

Structure-related Risks

- There is no fixed principal repayment amount on the notes at maturity. If the Ending Value is less than the Starting Value, you will lose up to 100% of the principal amount.
- Your investment return is limited to the return represented by the Capped Value and may be less than a comparable investment directly in the Basket Components.
- Payments on the notes will not reflect changes in the value of the Market Measure other than on the Final Calculation Day. As a result, even if the value of the Market Measure increases during the term of the notes, you will receive a Redemption Amount that is less than the principal amount if the Ending Value is less than the Starting Value on the Final Calculation Day, even if the value of the Market Measure was always greater than the Starting Value prior to such Final Calculation Day.
- Changes in the prices of one or more of the Basket Components may be offset by changes in the prices of one or more of the other Basket Components.
- Your return on the notes may be less than the yield you could earn by owning a conventional fixed or floating rate debt security of comparable maturity.
- Payments on the notes are subject to the credit risk of GSFC, as issuer, and the credit risk of GSG, as guarantor, and any actual or perceived changes in our or GSG’s creditworthiness are expected to affect the value of the notes. If we and GSG become insolvent or are unable to pay our respective obligations, you may lose your entire investment.

Valuation- and Market-related Risks

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

In estimating the value of your notes as of the time the terms of your notes are set on the pricing 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 “Risk Factors — Valuation- and Market-related Risks — The notes are not designed to be short-term trading instruments, and if you attempt to sell the notes prior to maturity, their market value, if any, will be affected by various factors that interrelate in complex ways, and their market value may be less than the principal amount.” on page PS-11 of the accompanying product supplement.

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

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

There is no assurance that GS&Co. or any other party will be willing to purchase your notes at any price and, in this regard, GS&Co. is not obligated to make a market in the notes. See "Risk Factors — Valuation- and Market-related Risks — Your notes may not have an active trading market." on page PS-11 of the accompanying product supplement.

- A trading market is not expected to develop for the notes. None of us, GSG, GS&Co. or MLPF&S is obligated to make a market for, or to repurchase, the notes. There is no assurance that any party will be willing to purchase your notes at any price in any secondary market.

Conflict-related Risks

- Our hedging and trading activities (including trades in shares of the Basket Components) and any hedging and trading activities we, GSG, GS&Co., MLPF&S or our other or their affiliates engage in that are not for your account or on your behalf, may affect the market value and return of the notes and may create conflicts of interest with you.
- There may be potential conflicts of interest involving the calculation agent, which is an affiliate of ours. We have the right to appoint and remove the calculation agent.

Market Measure-related Risks

- The issuers of the Basket Components (the "Underlying Companies") will have no obligations relating to the notes, and none of us, GSG, GS&Co. or MLPF&S will perform any due diligence procedures with respect to any Underlying Company in connection with this offering.
- You will have no rights of a holder of the Basket Components and you will not be entitled to receive shares of the Basket Components or dividends or other distributions by the Underlying Companies.
- While we, GSG, GS&Co., MLPF&S and our other or their affiliates may from time to time own securities of the Underlying Company, we, GSG, GS&Co., MLPF&S and our other or their affiliates do not control the Underlying Company, and have not verified any disclosure made by the Underlying Company.
- Payments on the notes will not be adjusted for all corporate events that could affect the Basket Components. See "Description of the Notes— Anti-Dilution Adjustments Relating to Underlying Stocks" beginning on page PS-35 of the accompanying product supplement.

Tax-related Risks

- The U.S. federal income tax consequences of the notes are uncertain, and may be adverse to a holder of the notes. See "Summary Tax Consequences" below and "U.S. Federal Income Tax Summary" beginning on page PS-46 of the accompanying product supplement.

Additional Risk Factors

Additional Market Measure-related Risks

Palantir Technologies Inc. ("PLTR") has limited actual historical information. PLTR commenced trading on the Nasdaq Stock Market LLC recently. Because PLTR is of recent origin and limited actual historical performance data exists with respect to it, your investment in the notes may involve a greater risk than investing in notes linked to underlying stocks with a more established record of performance.

The Market Measure

The Basket Components are described in the section “The Basket Components” below. Each Basket Component will be assigned an Initial Component Weight on the pricing date, as set forth in the table below.

For more information on the calculation of the value of the Basket, please see the section entitled “Description of the Notes—Baskets” beginning on page PS-39 of the accompanying product supplement.

If September 15, 2025 were the pricing date, for each Basket Component, its Initial Component Weight, Closing Market Price, hypothetical Component Ratio and Initial Basket Value Contribution would be as follows:

Basket Component	Current Bloomberg Ticker	Current Primary Listing	Initial Component Weight	Closing Market Price ⁽¹⁾⁽²⁾	Hypothetical Component Ratio ⁽¹⁾⁽³⁾	Initial Basket Value Contribution
the Class A common stock of Alphabet Inc.	GOOGL UW	Nasdaq Global Select Market	20.00%	\$251.61	0.07948810	20.00
the common stock of Broadcom Inc.	AVGO UW	Nasdaq Global Select Market	20.00%	\$364.09	0.05493147	20.00
the Class A common stock of Meta Platforms, Inc. (formerly Facebook, Inc.)	META UW	Nasdaq Stock Market LLC	20.00%	\$764.70	0.02615405	20.00
the common stock of NVIDIA Corporation	NVDA UW	Nasdaq Global Select Market	20.00%	\$177.75	0.11251758	20.00
the Class A common stock of Palantir Technologies Inc.	PLTR UW	Nasdaq Stock Market LLC	20.00%	\$171.21	0.11681561	20.00
					Starting Value	100.00

- (1) The actual Closing Market Price of each Basket Component and the resulting actual Component Ratios will be determined on the pricing date. The actual Closing Market Price and Component Ratio of each Basket Component will be set forth in the final term sheet that will be made available in connection with sales of the notes.
- (2) These were the Closing Market Prices of the Basket Components on September 15, 2025.
- (3) Each hypothetical Component Ratio equals the Initial Component Weight of the relevant Basket Component (as a percentage) multiplied by 100, and then divided by the Closing Market Price of that Basket Component on September 15, 2025 and rounded to eight decimal places.

The calculation agent will calculate the Ending Value as described under “Terms of the Notes—Ending Value” on page TS-3 above.

Hypothetical Historical Values of the Market Measure

Because the Market Measure is a newly created basket and its value will begin to be calculated only on the pricing date, there is no actual historical information about the values of the Market Measure as of the date of this term sheet. Therefore, the hypothetical values of the Market Measure provided in the graph below were calculated from publicly available historical Closing Market Prices of each Basket Component.

The following graph is based on the hypothetical values of the Market Measure for the period from September 30, 2020 through September 15, 2025, assuming that the hypothetical value of the Market Measure was 100 on September 30, 2020. We derived the hypothetical values of the Market Measure based on the method to calculate the value of the Market Measure as described in this term sheet and on actual Closing Market Prices of the relevant Basket Components on the relevant date. The hypothetical value of the Market Measure has been normalized such that its hypothetical value on September 30, 2020 was 100. As noted in this term sheet, the Starting Value will be set at 100 on the pricing date. The value of the Market Measure can increase or decrease due to changes in the prices of the Basket Components. The hypothetical values of the Market Measure begin at September 30, 2020 because one of the Basket Components, Palantir Technologies Inc., has available historical data only from September 30, 2020.

Hypothetical Historical Performance of the Market Measure



The Basket Components

The table set forth under “The Market Measure” above lists the Basket Components and related information, including their corresponding current Bloomberg tickers, current primary listings, Initial Component Weights, Closing Market Prices on the pricing date, Component Ratios and Initial Basket Value Contributions. The Closing Market Price and Component Ratio of each Basket Component will not be determined until the pricing date.

Where Information About the Underlying Companies Can Be Obtained

The Basket Components are registered under the Securities Exchange Act of 1934. Companies with securities registered under the Exchange Act are required to file financial and other information specified by the U.S. Securities and Exchange Commission (“SEC”) periodically. Information filed by the Underlying Companies with the SEC electronically can be reviewed through a web site maintained by the SEC. The address of the SEC’s web site is sec.gov.

Information about the Underlying Companies may also be obtained from other sources such as press releases, newspaper articles and other publicly available documents.

Neither we, GSG, GS&Co., MLPF&S nor our other or their affiliates make any representation or warranty as to the accuracy or completeness of any materials referred to above, including any filings made by the Underlying Companies with the SEC.

We Obtained the Information About the Underlying Companies From the Underlying Companies’ Public Filings

This term sheet relates only to your note and does not relate to the Basket Components or other securities of the Underlying Companies. We have derived all information about the Underlying Companies in this term sheet from the publicly available information referred to in the preceding subsection. Neither we, GSG, GS&Co., MLPF&S nor our other or their affiliates have participated in the preparation of any of those documents or made any “due diligence” investigation or inquiry with respect to the Underlying Companies in connection with the offering of your note. Furthermore, we do not know whether all events occurring before the date of this term sheet — including events that would affect the accuracy or completeness of the publicly available documents referred to above and the trading price of shares of the Basket Components — have been publicly disclosed. Subsequent disclosure of any events of this kind or the disclosure of or failure to disclose material future events concerning the Underlying Companies could affect the value you will receive at maturity and, therefore, the market value of your note.

Neither we, GSG, GS&Co., MLPF&S nor our other or their affiliates make any representation to you as to the performance of the Basket Components.

We, GSG, GS&Co., MLPF&S or our other or their affiliates may currently or from time to time engage in business with the Underlying Companies, including making loans to or equity investments in the Underlying Companies or providing advisory services to the Underlying Companies, including merger and acquisition advisory services. In the course of that business, we, GSG, GS&Co., MLPF&S or our other or their affiliates may acquire non-public information about the Underlying Companies and, in addition, one or more of us, GSG, GS&Co., MLPF&S or our other or their affiliates may publish research reports about the Underlying Companies. As an investor in a note, you should undertake such independent investigation of the Underlying Companies as in your judgment is appropriate to make an informed decision with respect to an investment in a note.

Historical Closing Market Prices of the Basket Components

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

You should not take the historical prices of a Basket Component as an indication of the future performance of a Basket Component, including because of the recent volatility described above. We cannot give you any assurance that the future performance of any Basket Component will result in you receiving the outstanding principal amount of your notes on the maturity date.

Neither we nor any of our affiliates make any representation to you as to the performance of the Basket Components. Before investing in the offered notes, you should consult publicly available information to determine the relevant prices of the Basket Components between the date of this term sheet and the date of your purchase of the notes **and, given the recent volatility described above, you should pay particular attention to recent prices of the Basket Components.** The actual performance of a Basket Component over the life of the offered notes, as well as the Redemption Amount, may bear little relation to the historical Closing Market Prices shown below.

The graphs below, except where otherwise indicated, show the daily historical Closing Market Prices of each Basket Component from January 1, 2015 through September 15, 2025, adjusted for corporate events, if applicable. As a result, the following graphs do not reflect the global financial crisis which began in 2008, which had a materially negative impact on the price of most equity securities. We obtained the Closing Market Prices in the graphs below from Bloomberg Financial Services, without independent verification.

Alphabet Inc.

According to publicly available information, Alphabet Inc. is a collection of businesses — the largest of which is Google. On October 2, 2015, Alphabet Inc. became the successor SEC registrant to, and parent holding company of, Google Inc. in connection with a holding company reorganization. Information filed with the SEC by the Underlying Company under the Exchange Act can be located by referencing its SEC file number 001-37580. In the graph, the vertical solid line marker reflects the date Alphabet Inc. became the successor SEC registrant to Google Inc. The daily historical closing prices for Alphabet Inc. in the graph below have been adjusted for a 20-for-1 stock split that became effective before the market open on July 15, 2022. On September 15, 2025, the Closing Market Price of the common stock of Alphabet Inc. was \$251.61.

Historical Performance of Alphabet Inc. – Class A



Broadcom Inc.

According to publicly available information, Broadcom Inc. designs, develops and supplies a broad range of semiconductor and infrastructure software solutions. Information filed with the SEC by the Underlying Company under the Exchange Act can be located by referencing its SEC file number 001-38449. The daily historical closing prices for Broadcom Inc. in the graph below have been adjusted for a 10-for-1 stock split that became effective before the market open on July 15, 2024. On September 15, 2025, the Closing Market Price of the common stock of Broadcom Inc. was \$364.09.

Historical Performance of Broadcom Inc.



Meta Platforms, Inc. (formerly Facebook, Inc.)

According to publicly available information, Meta Platforms, Inc. (formerly Facebook, Inc.) builds products that enable people to connect and share with friends and family through mobile devices, personal computers, virtual reality and mixed reality headsets, augmented reality and wearables. On June 9, 2022, Meta Platforms, Inc. began trading under the ticker symbol "META" on the Nasdaq Global Select Market. Prior to June 9, 2022, Meta Platforms, Inc. traded under the ticker symbol "FB". Information filed with the SEC by the Underlying Company under the Exchange Act can be located by referencing its SEC file number 001-35551. On September 15, 2025, the Closing Market Price of the common stock of Meta Platforms, Inc. (formerly Facebook, Inc.) was \$764.70.

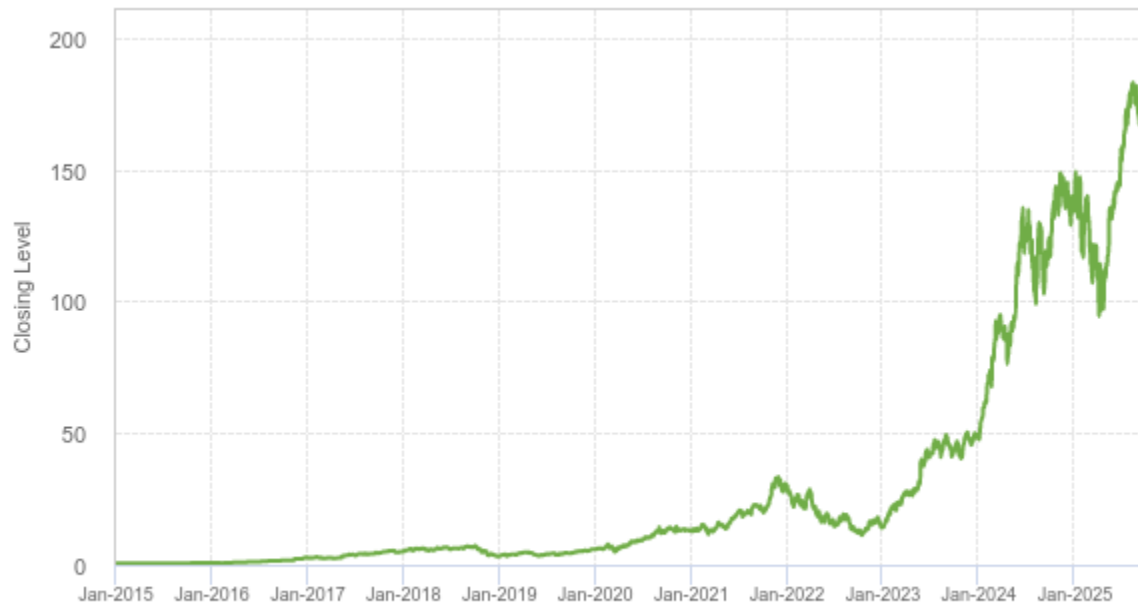
Historical Performance of Meta Platforms, Inc. (formerly Facebook, Inc.)



NVIDIA Corporation

According to publicly available information, NVIDIA Corporation is a full-stack computing infrastructure company with data-center-scale offerings. Information filed with the SEC by the Underlying Company under the Exchange Act can be located by referencing its SEC file number 000-23985. The daily historical closing prices for NVIDIA Corporation in the graph below have been adjusted for a 4-for-1 stock split that became effective before the market open on July 20, 2021 and a 10-for-1 stock split that became effective before the market open on June 10, 2024. On September 15, 2025, the Closing Market Price of the common stock of NVIDIA Corporation was \$177.75.

Historical Performance of NVIDIA Corporation



Palantir Technologies Inc.

According to publicly available information, Palantir Technologies Inc. builds software that empowers organizations to integrate their data, decisions, and operations at scale. Information filed with the SEC by the Underlying Company under the Exchange Act can be located by referencing its SEC file number 001-39540. The graph below shows the daily historical Closing Market Prices of Palantir Technologies Inc. from the completion of its initial public offering on September 30, 2020 through September 15, 2025, adjusted for corporate events, if applicable. On September 15, 2025, the Closing Market Price of the Class A common stock of Palantir Technologies Inc. was \$171.21.

Historical Performance of Palantir Technologies Inc.



Supplement to the Plan of Distribution; Conflicts of Interest

See “Supplemental Plan of Distribution” on page PS-43 of the accompanying product supplement and “Plan of Distribution — Conflicts of Interest” on page 127 of the accompanying prospectus. GSFC estimates that its share of the total offering expenses, excluding underwriting discounts and commissions, will be approximately \$.

GSFC will sell to GS&Co., and GS&Co. will purchase from GSFC, the aggregate principal amount of the offered notes specified on the front cover of this term sheet. MLPF&S will purchase the notes from GS&Co. for resale, and will receive a discount in connection with the sale of the notes in an amount up to the full amount of underwriting discount set forth on the cover of this term sheet. MLPF&S will offer the notes at the public offering price set forth on the cover page hereto. GS&Co. is an affiliate of GSFC and GSG and, as such, will have a “conflict of interest” in this offering of notes within the meaning of Financial Industry Regulatory Authority, Inc. (FINRA) Rule 5121. Consequently, this offering of notes will be conducted in compliance with the provisions of FINRA Rule 5121. GS&Co. will not be permitted to sell notes in this offering to an account over which it exercises discretionary authority without the prior specific written approval of the account holder. We will pay a fee to LFT Securities, LLC for providing certain electronic platform services with respect to this offering, which will reduce the economic terms of the notes to you. An affiliate of MLPF&S has an ownership interest in LFT Securities, LLC.

In connection with the initial offering of the notes, the minimum principal amount of notes that may be purchased by any investor is \$100,000.

We will deliver the notes against payment therefor in New York, New York on the settlement date set forth on the cover page of this term sheet. Under Rule 15c6-1 of the Securities Exchange Act of 1934, trades in the secondary market generally are required to settle in one business day, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade notes on any date prior to one business day before delivery will be required to specify alternative settlement arrangements to prevent a failed settlement.

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

The notes will not be listed on any securities exchange or interdealer quotation system. If you place an order to purchase the notes, you are consenting to MLPF&S and/or one of its affiliates acting as a principal in effecting the transaction for your account.

The value of the notes shown on your account statement will be based on GS&Co.’s estimate of the value of the notes if GS&Co. were to make a market in the notes, which they are not obligated to do. That estimate will be based upon the price that GS&Co. may pay for the notes in light of then-prevailing market conditions and other considerations as described under “Risk Factors — Valuation- and Market-related Risks — The estimated value of your notes at the time the terms of your notes are set on the pricing date (as determined by reference to pricing models used by GS&Co.) is less than the public offering price of your notes.” on page TS-9 of this term sheet.

Structuring the Notes

The notes are our debt securities, the return on which is linked to the performance of the Market Measure. The related guarantees are GSG's obligations. As is the case for all of our debt securities, including our market-linked notes, the economic terms of the notes reflect our and GSG's actual or perceived creditworthiness at the time of pricing. The economic terms of the notes are based upon 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 variables will influence the economic terms of the notes and the initial estimated value of the notes on the pricing date. In addition, the underwriting discount and costs incurred in creating, documenting and marketing the notes will reduce the economic terms of the notes and the initial estimated value of the notes on the pricing date.

At maturity, we are required to pay the Redemption Amount to holders of the notes, which will be calculated based on the performance of the Market Measure and the \$10 per unit principal amount. In order to meet these payment obligations, at the time we issue the notes, we have entered into, or expect to enter into, certain hedging arrangements (which may include call options, put options or other derivatives) with GS&Co. or one of our other affiliates. The terms of these hedging arrangements may take into account a number of factors, including our and GSG's creditworthiness, interest rate movements, the volatility of the Market Measure, the tenor of the notes and the tenor of the hedging arrangements. See "Hedging" on page PS-22 in the accompanying product supplement for additional information.

For further information, see "Risk Factors—Valuation- and Market-related Risks" and "—Conflict-related Risks" beginning on page PS-10 and PS-13, respectively, and "Use of Proceeds" on page PS-22 of the accompanying product supplement.

Summary Tax Consequences

You should consider the U.S. federal income tax consequences of an investment in the notes, including the following:

- There is no statutory, judicial, or administrative authority directly addressing the characterization of the notes.
- You agree with us (in the absence of an administrative determination, or judicial ruling to the contrary) to characterize and treat the notes for all tax purposes as a single financial contract with respect to the Market Measure.
- No assurance can be given that the Internal Revenue Service (“IRS”) or any court will agree with this characterization and tax treatment.
- Upon receipt of a cash payment at maturity or upon a sale or exchange, a U.S. Holder generally will recognize capital gain or loss. This capital gain or loss generally will be long-term capital gain or loss if you hold the notes for more than one year.
- Under current IRS guidance, withholding on “dividend equivalent” payments (as discussed in the product supplement), if any, will not apply to notes that are issued as of the date of this term sheet unless such notes are “delta-one” instruments.

You should consult your own tax advisor concerning the U.S. federal income tax consequences to you of acquiring, owning, and disposing of the notes, as well as any tax consequences arising under the laws of any state, local, foreign, or other tax jurisdiction and the possible effects of changes in U.S. federal or other tax laws. You should review carefully the discussion under the section entitled “U.S. Federal Income Tax Summary” beginning on page PS-46 of the accompanying product supplement.

Where You Can Find More Information

We and GSG have filed a registration statement (including a product supplement, a prospectus supplement, and a prospectus) with the SEC for the offering to which this term sheet relates. Before you invest, you should read the Note Prospectus, including this term sheet, and the other documents relating to this offering that we and GSG have filed with the SEC, for more complete information about us, GSG and this offering. You may get these documents without cost by visiting EDGAR on the SEC website at www.sec.gov or, alternatively, by calling MLPF&S toll-free at 1-800-294-1322.

“Accelerated Return Notes[®]” and “ARNs[®]” are registered service marks of Bank of America Corporation, the parent company of MLPF&S.

Product Supplement No. EQUITY MLI-2
(To Prospectus dated February 14, 2025
and Prospectus Supplement dated February 14, 2025)
February 14, 2025



GS Finance Corp.

Medium-Term Notes, Series F

guaranteed by

The Goldman Sachs Group, Inc.

Notes Linked to One or More Equity Indices, Exchange Traded Funds or Securities

- The notes are senior unsecured debt securities issued by GS Finance Corp., a wholly owned subsidiary of The Goldman Sachs Group, Inc. (the “**Guarantor**”). Any payment due on the notes is fully and unconditionally guaranteed by the Guarantor. Any payments due on the notes, including any repayment of principal, will be 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 return on the notes will be based on the performance of an underlying “**Market Measure**,” which will be an equity index (an “**Index**”); an exchange traded fund (an “**Underlying Fund**”); the equity securities or American Depositary Receipts (“**ADRs**”) of a company other than us, the agents, or our respective affiliates (an “**Underlying Stock**”); a basket of the foregoing; the worst-performing of any of the foregoing; or the best-performing of any of the foregoing.
- For each offering of the notes, we will provide you with a pricing supplement (which we refer to as a “**term sheet**”) that will describe the specific terms of that offering, including the specific Market Measure, maturity date and certain risk factors. Further, if specified in the applicable term sheet, a separate supplement, which we refer to as the applicable underlier supplement, will describe the specified Market Measure. The applicable term sheet will identify, if applicable, any additions or changes to the terms specified in this product supplement.
- The notes may or may not pay coupons on either a contingent or fixed basis. Depending on the terms of the notes, the amount payable at maturity per unit (the “**Redemption Amount**”) may be less than, equal to or greater than the principal amount. The notes may or may not be callable or subject to early redemption prior to maturity.
- This product supplement describes the general terms of the notes, the risk factors to consider before investing, the general manner in which the notes may be offered and sold, and other relevant information.
- The notes will be issued in denominations of whole units. Unless otherwise set forth in the applicable term sheet, each unit will have a principal amount of \$10.00. The applicable term sheet may also set forth a minimum number of units that you must purchase.
- Unless otherwise specified in the applicable term sheet, the notes will not be listed on a securities exchange or quotation system.
- Goldman Sachs & Co. LLC (“**GS&Co.**”) will act as our selling agent to offer the notes and will act in a principal capacity in such role.

*The notes are unsecured obligations of GS Finance Corp. and the related guarantee of the notes is an unsecured obligation of The Goldman Sachs Group, Inc. The notes and the related guarantee are not savings accounts, deposits, or other obligations of a bank. The notes are not guaranteed by Goldman Sachs Bank USA or any other bank, and are not insured by the Federal Deposit Insurance Corporation (the “**FDIC**”) or any other governmental agency and involve investment risks, including possible loss of principal. Potential purchasers of the notes should consider the information in “Risk Factors” beginning on page PS-7 of this product supplement, “Considerations Relating to Indexed Notes” beginning on page S-10 of the accompanying prospectus supplement and “Considerations Relating to Indexed Securities” beginning on page 101 of the accompanying prospectus. **You may lose all or a significant portion of your investment in the notes.***

*Neither the Securities and Exchange Commission (the “**SEC**”) nor any other regulatory body has approved or disapproved of these securities or passed upon the adequacy or accuracy of this product supplement, the applicable term sheet, the applicable underlier supplement, if any, or the accompanying prospectus supplement or prospectus. Any representation to the contrary is a criminal offense.*

Goldman Sachs & Co. LLC

TABLE OF CONTENTS

	Page
SUMMARY	PS-3
RISK FACTORS	PS-7
USE OF PROCEEDS	PS-22
HEDGING	PS-22
DESCRIPTION OF THE NOTES.....	PS-23
SUPPLEMENTAL PLAN OF DISTRIBUTION	PS-43
U.S. FEDERAL INCOME TAX SUMMARY	PS-46
EMPLOYEE RETIREMENT INCOME SECURITY ACT	PS-58

GS Finance Corp. and the Guarantor have not authorized anyone to provide any information other than that contained or incorporated by reference in the applicable term sheet, this product supplement, any applicable underlier supplement or the accompanying prospectus supplement or prospectus with respect to the notes offered by the applicable term sheet or with respect to GS Finance Corp. and the Guarantor. GS Finance Corp. and the Guarantor take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. The applicable term sheet, together with this product supplement, any applicable underlier supplement and the accompanying prospectus supplement and prospectus, will contain the terms of the notes and will supersede all other prior or contemporaneous oral statements as well as any other written materials, including preliminary or indicative pricing terms, correspondence, trade ideas, structures for implementation, sample structures, fact sheets, brochures or other educational materials of GS Finance Corp. The information in each applicable term sheet, this product supplement, any applicable underlier supplement and the accompanying prospectus supplement and prospectus may be accurate only as of the date of that document.

The notes are not appropriate for all investors and involve a number of risks and important legal and tax consequences that should be discussed with your professional advisers. You should be aware that the regulations of Financial Industry Regulatory Authority, Inc., or “**FINRA**,” and the laws of certain jurisdictions (including regulations and laws that require brokers to ensure that investments are suitable for their customers) may limit the availability of the notes. The applicable term sheet, this product supplement, any applicable underlier supplement and the accompanying prospectus supplement and prospectus do not constitute an offer to sell or a solicitation of an offer to buy the notes under any circumstances in which that offer or solicitation is unlawful.

SUMMARY

The information in this “Summary” section is qualified in its entirety by the more detailed explanation set forth elsewhere in this product supplement, any applicable underlier supplement and the accompanying prospectus supplement and prospectus, as well as the applicable term sheet. None of us, the Guarantor or GS&Co. have authorized any other person to provide you with any information different from the information set forth in these documents. If anyone provides you with different or inconsistent information about the notes, you should not rely on it.

Key Terms:

General: The notes are senior unsecured debt securities issued by GS Finance Corp., a wholly owned finance subsidiary of The Goldman Sachs Group, Inc. The Goldman Sachs Group, Inc. will fully and unconditionally guarantee all payments of principal, interest and other amounts payable on the notes. The notes rank equally with all of our other unsecured senior debt from time to time outstanding. The guarantee of the notes will rank pari passu with all other unsecured, unsubordinated obligations of the Guarantor. **Any payments due on the notes, including any repayment of principal, are subject to credit risk. If GS Finance Corp., as issuer, and The Goldman Sachs Group, Inc., as guarantor, default on their obligations, you could lose some or all of your investment.**

The return on the notes will be based on the performance of a Market Measure. We may issue notes in which the payment(s) increase if the value of the Market Measure increases (“**Bullish Notes**”) or we may issue notes in which the payment(s) increase if the value of the Market Measure decreases (“**Bearish Notes**”).

Each issue of the notes will mature on the date set forth in the applicable term sheet. The notes may or may not pay coupons on either a contingent or fixed basis. The notes may or may not be callable or subject to early redemption prior to maturity.

Market Measure:

The Market Measure may consist of one or more of the following:

- U.S. broad-based Indices;
- U.S. sector or style-based Indices;
- non-U.S. or global Indices;
- Underlying Funds;
- The Underlying Stock of a company other than us, the agents or our respective affiliates (the “**Underlying Company**”) represented either by a class of equity securities registered under the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), or by ADRs. ADRs are securities issued through depositary arrangements and registered under the Exchange Act that represent non-U.S. equity securities. If an Underlying Stock is an ADR, references to the “Underlying Company” of that Underlying Stock refer to the issuer of the shares underlying the ADR; or
- any combination of the above.

The Market Measure may consist of a group, or “**Basket**,” of the foregoing. We refer to each Index, Underlying Fund or Underlying Stock included in any Basket as a “**Basket Component**.” If the Market Measure to which your notes are linked is a Basket, the Basket Components will be set forth in the applicable term sheet.

The Market Measure may also consist of the “**Worst-Performing**” (to be defined in the applicable term sheet) of two or more of any of the following types of components: Indices, Underlying Funds, Underlying Stocks and Baskets (the “**Worst-Performing**”).

Market Measure). If your notes are linked to the Worst-Performing Market Measure, references in this product supplement to “Market Measure” should be read as references to the applicable Worst-Performing Market Measure.

The Market Measure may also consist of the “**Best-Performing**” (to be defined in the applicable term sheet) of two or more of any of the following types of components: Indices, Underlying Funds, Underlying Stocks and Baskets (the “**Best-Performing Market Measure**”). If your notes are linked to the Best-Performing Market Measure, references in this product supplement to “Market Measure” should be read as references to the applicable Best-Performing Market Measure.

The applicable term sheet may also refer to a Market Measure as an “**Underlier**” or an “**Underlying**.”

Payment(s) on the Notes: The applicable term sheet will set forth the manner in which payment(s) on the notes, including any coupon payment(s) or any payment at maturity or upon early redemption, will be determined. See “Description of the Notes.”

Principal at Risk: Depending on the terms of the notes there may be no guaranteed return of principal at maturity and you may lose all or a significant portion of your principal amount. Further, if you are able to sell your notes prior to maturity or early redemption, the price you may receive may be less than the price that you paid for your notes.

Calculation Agent: The calculation agent will make all determinations associated with the notes. Unless otherwise set forth in the applicable term sheet, GS&Co. is serving as the calculation agent for the notes. See “Description of the Notes—Role of the Calculation Agent.”

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 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 The default quotation period is the period beginning on the day the default amount

- Period:** first becomes due and ending on the third business day after that day, unless:
- no quotation of the kind referred to above is obtained, or
 - every quotation of that kind obtained is objected to within five business days after the due day as described above.
- 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 final calculation day, 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 or any successor, or any other comparable rating then used by that rating agency.
- Listing:** Unless otherwise specified in the applicable term sheet, the notes will not be listed on a securities exchange or quotation system.

This product supplement relates only to the notes and does not relate to any Index, Underlying Fund or Underlying Stock that comprises the Market Measure described in any applicable term sheet. You should read carefully the entire prospectus, prospectus supplement, any applicable underlier supplement and this product supplement, together with the applicable term sheet, to understand fully the terms of your notes, as well as the tax and other considerations important to you in making a decision about whether to invest in any notes. In particular, you should review carefully the section in this product supplement entitled "Risk Factors," which highlights a number of risks of an investment in the notes, to determine whether an investment in the notes is appropriate for you. Additional risk factors may be set forth in the applicable term sheet. If information in this product supplement is inconsistent with the accompanying prospectus or prospectus supplement or any applicable underlier supplement, this product supplement will supersede those documents. However, if information in any term sheet is inconsistent with this product supplement, that term sheet will supersede this product supplement.

Neither Goldman Sachs nor any dealer participating in the offering is making an offer to sell the notes in any jurisdiction where the offer or sale is not permitted.

Certain terms used and not defined in this product supplement have the meanings ascribed to them in the accompanying prospectus supplement or prospectus.

Please note that in this product supplement, references to "GS Finance Corp.," "we," "our" and "us" refer only to GS Finance Corp. and do not include its consolidated subsidiaries or affiliates. Also, references to "The Goldman Sachs Group, Inc.," our ultimate parent company, or "Guarantor" refer only to The Goldman Sachs Group, Inc. and do not include its consolidated subsidiaries, while

references to “Goldman Sachs” mean The Goldman Sachs Group, Inc. together with its consolidated subsidiaries and affiliates, including us.

You are urged to consult with your own attorneys and business and tax advisors before making a decision to purchase any notes.

RISK FACTORS

Your investment in the notes is subject to investment risks, many of which differ from those of a conventional debt security. Your decision to purchase the notes should be made only after carefully considering the risks, including those discussed below, together with the risk information contained in the applicable term sheet, any applicable underlier supplement and/or other supplement, the accompanying prospectus supplement and the accompanying prospectus, in light of your particular circumstances. The notes are not an appropriate investment for you if you are not knowledgeable about the material terms of the notes or investments in equity or equity-based securities in general.

Structure-related Risks

Your investment may result in a loss; there may be no guaranteed return of principal. To the extent set forth in the applicable term sheet, there may not be a fixed principal repayment amount on the notes at maturity. The return on the notes will be based on the performance of a Market Measure and therefore you may lose all or a significant portion of your investment at maturity if the value of the Market Measure decreases over the term of the notes (or in the case of Bearish Notes, increases). You should read the applicable term sheet to determine the extent to which your investment in the notes may result in the loss of your investment due to changes in the value of a Market Measure.

The payment(s) on the notes may be limited to a maximum return and may be less than a comparable investment directly in the Market Measure or any of its underlying assets. If so specified in the applicable term sheet, the notes may have a fixed maximum return, regardless of the performance of the Market Measure. In such a case, your return on the notes may be less than the return that you could have realized if you invested directly in the Market Measure (or any securities, commodities or other assets represented by the Market Measure), and you will not receive the full benefit of any appreciation (or in the case of Bearish Notes, decreases) in the value of the Market Measure beyond that maximum return.

In addition, unless otherwise set forth in the applicable term sheet, the value of the Market Measure as of any date will not reflect the value of dividends paid, or distributions made, on the Market Measure or any of its underlying assets, or any other rights associated with the Market Measure or those underlying assets. Further, investing in your notes will not make you a holder of any shares of a Market Measure or the underlying assets, as applicable. Neither you nor any other holder or owner of your notes will have any rights with respect to the Market Measure or the underlying assets, including any voting rights, any rights to receive dividends or other distributions, any rights to make a claim against the Market Measure or the underlying assets or any other rights of a holder of any shares of a Market Measure or the underlying assets, as applicable. Thus, any return on the notes will not reflect the return you would realize if you actually owned the Market Measure or any of its underlying assets.

Additionally, the Market Measure may consist of an Index or Underlying Fund that includes components traded in a non-U.S. currency that, for purposes of calculating the level of such Index or Underlying Fund, are not converted into U.S. dollars. If the value of that currency strengthens against the U.S. dollar during the term of your notes, you may not obtain the benefit of that increase, which you would have received if you had owned shares or units of the Market Measure or those components, as applicable.

The historical performance of the Market Measure should not be taken as an indication of its performance during the term of the notes. The Market Measure or a Basket Component may perform better or worse during the term of the notes than it has historically. The historical performance of the Market Measure or a Basket Component, including any historical performance set forth in the applicable term sheet, should not be taken as an indication of its future performance.

You may not receive any coupons on the notes and any return on the notes may be less than the yield on a conventional debt security of comparable maturity. The applicable term sheet will state whether your notes pay a coupon. If your notes are coupon bearing, they may only pay contingent coupons or pay coupons at a rate that is less than the rate we would pay on a conventional debt security of comparable maturity. Any return that you receive on the notes may be less than the return you would earn if you purchased a conventional debt security with the same maturity date. To the extent that coupon payments on the notes are contingent upon the performance of a Market Measure, the greater the expected volatility of the Market Measure at the time the terms of your notes are set, the greater the expectation is at that time that you may not receive the contingent coupon payments. As a result, your investment in the notes may not reflect the full opportunity cost to you when you consider factors, such as inflation, that affect the time value of money.

Your notes may be called prior to maturity. If so specified in the applicable term sheet, your notes may be called at our option prior to maturity, or may be automatically called upon the occurrence of certain specified events prior to maturity. If the notes are called, the term of the notes will be short. In such a case, your ability to receive any coupons over the term of the notes, if applicable, will be limited. No further payment(s) will be made on the notes after they have been called. There is no guarantee that you would be able to reinvest the proceeds from an investment in the notes at a comparable return for a similar level of risk in the event the notes are called prior to maturity.

Payments on the notes will not reflect changes in the value of the Market Measure other than on the Observation Dates or during the Maturity Valuation Period, as applicable. Unless otherwise specified in the applicable term sheet, changes in the value of the Market Measure during the term of the notes other than on the Observation Dates or during the Maturity Valuation Period, as applicable, will not be reflected in the determinations as to payments on the notes. To make these determinations, the calculation agent will refer only to the value of the Market Measure on the Observation Dates or the calculation days during the Maturity Valuation Period, as applicable. As a result, even if the value of the Market Measure has increased (or in the case of Bearish Notes, decreased) at certain times during the term of the notes, you may not receive any positive return on the notes or may lose some or all of your investment if the value of the Market Measure subsequently declines (or in the case of Bearish Notes, increases) on the Observation Dates or the calculation days during the Maturity Valuation Period. In addition, if the Maturity Valuation Period for the notes consists of two or more scheduled calculation days, the Redemption Amount may be less than it would have been had the Redemption Amount been calculated based on the value of the Market Measure on any particular calculation day.

More favorable economic terms are generally associated with a Market Measure with greater expected volatility and therefore can indicate a greater risk of loss. “Volatility” refers to the frequency and magnitude of changes in the value of the Market Measure. The greater the expected volatility with respect to the Market Measure on the pricing date, the higher the expectation as of the pricing date that the value of the Market Measure could decrease over the term of the notes (or in the case of Bearish Notes, increase), indicating a higher expected risk of loss on the notes. This greater expected risk will generally be reflected in a higher coupon rate than the yield payable on our conventional debt securities with a similar maturity or in more favorable terms than for similar securities linked to the performance of a Market Measure with a lower expected volatility as of the pricing date. You should therefore understand that a relatively higher coupon rate may or increased economic terms may indicate an increased risk of loss. The volatility of the Market Measure can change significantly over the term of the notes. The value of the Market Measure for your notes could fall sharply, which could adversely affect the return on the notes.

If your notes are linked to a Basket, changes in the values of one or more of the Basket Components may be offset by changes in the values of one or more of the other Basket Components. The Market Measure of your notes may include a Basket. In such a case, changes in the values of one or more of the Basket Components may not correlate with changes in the values of one or more of the other Basket Components. The values of one or more Basket Components may increase, while the values of one or more of the other Basket Components may decrease or not increase as much. Therefore, in calculating the value of the Basket at any time, increases in the value of one Basket Component may be moderated or wholly offset by decreases or lesser increases in the values of one or more of the other Basket Components. If the weightings of the applicable Basket Components are not equal, adverse changes in the values of the Basket Components that are more heavily weighted could have a greater impact upon the value of the Basket and, consequently, the return on your notes. In each case, the reverse may be true as to Bearish Notes.

If your notes are linked to the Worst-Performing of two or more Indices, Underlying Funds, Underlying Stocks or Baskets, the notes will be subject to the risks of each Index, Underlying Fund, Underlying Stock or Basket, not a basket composed of the foregoing, and will be negatively affected if the value of any Index, Underlying Fund, Underlying Stock or Basket decreases, even if the value of any other Index, Underlying Fund, Underlying Stock or Basket does not. If your notes are linked to the Worst-Performing of two or more Indices, Underlying Funds, Underlying Stocks or Baskets (the “**Worst-Performing Notes**”), you will be subject to the risks associated with each Index, Underlying Fund, Underlying Stock or Basket. Worst-Performing Notes will not be linked to an overall basket composed of the Indices, Underlying Funds, Underlying Stocks or Baskets, where the depreciation in the value of one Index, Underlying Fund, Underlying Stock or Basket could be offset to some extent by the appreciation in the value of the other Index, Underlying Fund, Underlying Stock or Basket. In this case, the individual performance of

each Index, Underlying Fund, Underlying Stock or Basket would not be combined, and the depreciation in the value of one Index, Underlying Fund, Underlying Stock or Basket would not be offset by any appreciation in the value of the other Index, Underlying Fund, Underlying Stock or Basket. For example, you could lose some or all of your investment in the notes if the value of one Index, Underlying Fund, Underlying Stock or Basket has declined over the term of the notes, even if the value of each other Index, Underlying Fund, Underlying Stock or Basket has increased over the term of the Notes. The same analysis is true with respect to all determinations to be made for the Worst-Performing Notes. In each case, the reverse is true as to Bearish Notes.

If your notes are Worst-Performing Notes, you will not benefit in any way from the performance of the better performing Index, Underlying Fund, Underlying Stock or Basket. If your notes are Worst-Performing Notes, the return on the notes will depend solely on the performance of the Worst-Performing Index, Underlying Fund, Underlying Stock or Basket, and you will not benefit in any way from the performance of the better performing Index, Underlying Fund, Underlying Stock or Basket. The notes may underperform a similar investment in each of the Indices, Underlying Funds, Underlying Stock or Baskets or a similar alternative investment linked to a basket composed of the Indices, Underlying Funds, Underlying Stock or Baskets. In either such case, the performance of the better performing Index, Underlying Fund, Underlying Stock or Basket would be blended with the performance of the Worst-Performing Index, Underlying Fund, Underlying Stock or Basket, resulting in a potentially better return than what you would receive on the notes.

If your notes are Worst-Performing Notes, it is more likely that you will not receive a positive return on the notes and will lose some or all of your investment. With two Indices, Underlying Funds, Underlying Stocks or Baskets, it is more likely that the value of one Index, Underlying Fund, Underlying Stock or Basket will decline during the term of the notes than if the notes were linked to only one of the Indices, Underlying Funds, Underlying Stock or Baskets, in which case you may not receive a positive return on the notes and may lose some or all of your investment.

If your notes are Worst-Performing Notes, you will be subject to risks relating to the relationship between the Indices, Underlying Funds, Underlying Stocks or Baskets. By investing in Worst-Performing Notes, you assume the risk that the Indices, Underlying Funds, Underlying Stocks or Baskets may not exhibit a positive correlation (i.e., a tendency for their values to increase or decrease at similar times and by similar magnitudes). The less correlated the Indices, Underlying Funds, Underlying Stocks or Baskets, the more likely it is that the value of one Index, Underlying Fund, Underlying Stock or Basket will decline during the term of the notes, in which case you may not receive a positive return on the notes and may lose some or all of your investment. It is impossible to predict what the relationship between the Indices, Underlying Funds, Underlying Stocks or Baskets will be over the term of the notes.

If your notes are linked to the Best-Performing of two or more Indices, Underlying Funds, Underlying Stocks or Baskets, the Best-Performing Index, Underlying Fund, Underlying Stock or Basket may have poor performance and may not significantly outperform the lesser-performing Indices, Underlying Funds, Underlying Stocks and/or Baskets, as applicable. Even if your notes are linked to the Best-Performing of two or more Indices, Underlying Funds, Underlying Stocks or Baskets (the “**Best-Performing Notes**”), the Best-Performing Market Measure may nevertheless have poor performance. Each Index, Underlying Fund, Underlying Stock or Basket to which the notes are linked may experience significant declines, and the fact that the notes are Best-Performing Notes does not mean that you will receive any positive return or not suffer a loss on the notes. Moreover, the Best-Performing Market Measure may not significantly outperform the lesser-performing Indices, Underlying Funds, Underlying Stocks and/or Baskets, as applicable. There is no assurance that having exposure to the Best-Performing Market Measure will provide a meaningful benefit relative to having exposure to only one Index, Underlying Fund, Underlying Stock or Basket, as applicable.

The notes are subject to the credit risk of GS Finance Corp., as issuer, and the credit risk of The Goldman Sachs Group, Inc., as guarantor. Although the return on the notes will be based on the performance of the Market Measure, 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 Notes We May Offer — How the Notes Rank Against Other Debt" in the accompanying prospectus supplement and "Description of Debt Securities We May Offer — Guarantee by The Goldman Sachs Group, Inc." in the accompanying prospectus.

If you purchase your notes at a premium to the principal amount, the return on your investment will be lower than the return on notes purchased at the principal amount and the impact of certain key terms of the notes will be negatively affected. Any payments on the notes will not be adjusted based on the price you pay for the notes. If you purchase notes at a price that differs from the principal amount of the notes, then the return on your investment in such notes will differ from, and may be substantially less than, the return on notes purchased at the principal amount. If you purchase your notes at a premium to the principal amount, the return on your investment in the notes will be lower than it would have been had you purchased the notes at principal amount or a discount to principal amount.

We may sell an additional aggregate principal amount of the notes at a different issue price. At our sole option, with respect to an offering of notes, we may decide to sell an additional aggregate principal amount of such notes subsequent to the date of the applicable term sheet. The issue price of the notes in the subsequent sale may differ substantially (higher or lower) from the issue price which was paid in the original sale.

Valuation- and Market-related Risks

The estimated value of your notes at the time the terms of your notes are set on the pricing date is less than the public offering price of your notes. The public offering price for your notes exceeds the estimated value of your notes as of the time the terms of your notes are set on the pricing date, as determined by reference to GS&Co.'s pricing models and taking into account our credit spreads. Such estimated value on the pricing date will be set forth in the applicable term sheet; after the pricing 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. If specified in the applicable term sheet, 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. If specified in the applicable term sheet, as agreed by GS&Co. and the distribution participants, this excess (i.e., the additional amount set forth in the applicable term sheet) will decline to zero on a straight line basis over the period from the date thereof through the additional amount end date set forth in the applicable term sheet. 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 pricing date, 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 notes are not designed to be short-term trading instruments, and if you attempt to sell the notes prior to maturity, their market value, if any, will be affected by various factors that interrelate in complex ways, and their market value may be less than the principal amount." below.

The difference between the estimated value of your notes as of the time the terms of your notes are set on the pricing date and the public offering 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, if applicable, subject to the declining excess amount described above).

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

There is no assurance that GS&Co. or any other party will be willing to purchase your notes at any price and, in this regard, GS&Co. is not obligated to make a market in the notes. See “— Your notes may not have an active trading market.” below.

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, the number of potential buyers of your notes in any secondary market may be limited, 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 ask prices for your notes in any secondary market could be substantial. There is no assurance that any party will be willing to purchase your notes at any price in any secondary market.

The notes are not designed to be short-term trading instruments, and if you attempt to sell the notes prior to maturity, their market value, if any, will be affected by various factors that interrelate in complex ways, and their market value may be less than the principal amount. The notes are not designed to be short-term trading instruments. Unless otherwise set forth in the applicable term sheet, you have no right to have your notes redeemed prior to maturity. If you wish to liquidate your investment in the notes prior to maturity, your only option would be to sell them in the secondary market. At that time, there may be an illiquid market for your notes or no market at all. Even if you were able to sell your notes, there are many factors outside of our control that may adversely affect their market value, some of which, but not all, are stated below. The impact of any one factor may be offset or magnified by the effect of another factor. These factors may interact with each other in complex and unpredictable ways. The following paragraphs describe a specific factor's expected impact on the market value of the notes, *assuming all other conditions remain constant*.

- **Value of the Market Measure.** We anticipate that the market value of the notes prior to maturity or a call generally will depend to a significant extent on the value of the Market Measure. In general, it is expected that the market value of the notes will decrease as the value of the Market Measure decreases. The reverse will be true as to Bearish Notes. However, as the value of the Market Measure increases or decreases, the market value of the notes may not increase or decrease at the same rate. If you sell your notes when the value of the Market Measure is less than, or not sufficiently above (or in the case of Bearish Notes, below) its value on the pricing date, then you may receive less than the principal amount of your notes.
- **Volatility of the Market Measure.** Volatility is the term used to describe the size and frequency of market fluctuations. The volatility of the Market Measure during the term of the notes may vary. In addition, an unsettled international environment and related uncertainties may result in greater market volatility, which may continue over the term of the notes. Increases or decreases in the volatility of the Market Measure may have an adverse impact on the market value of the notes. Even if the value of the Market Measure increases after the applicable pricing date, if you are able to sell your notes before their maturity date, you may receive substantially less than the amount that would be payable upon a call or at maturity based on that value because of the anticipation that the value of the Market Measure will continue to fluctuate prior to the maturity date of the notes.
- **Economic and Other Conditions Generally.** The general economic conditions of the capital markets in the United States, as well as geopolitical conditions and other financial, political, public health, regulatory and judicial events, natural disasters, acts of terrorism or war, and related uncertainties that

affect stock or commodity markets generally, may adversely affect the value of the Market Measure and the market value of the notes. If the Market Measure or a Basket Component, as applicable, includes one or more Underlying Funds or Indices that have returns that are calculated based upon securities, commodities or other assets traded in one or more non-U.S. markets (a “**non-U.S. Market Measure**”), or if an Underlying Stock is an ADR, the value of your notes may also be adversely affected by similar events in the markets of the relevant foreign countries.

- **Interest Rates.** We expect that changes in interest rates will affect the market value of the notes. In general, if U.S. interest rates increase, we expect that the market value of the notes will decrease. In general, we expect that the longer the amount of time that remains until maturity, the more significant the impact of these changes will be on the value of the notes. The level of interest rates also may affect the U.S. economy and any applicable market outside of the United States, and in turn, the value of the Market Measure, and, thus, the market value of the notes may be adversely affected. In the case of non-U.S. Market Measures or any Underlying Stock that is an ADR, the level of interest rates in the relevant foreign countries may also affect their economies and in turn the value of the non-U.S. Market Measure or ADR, and, thus, the market value of the notes may be adversely affected.
- **Dividend Yields.** In general, if the cumulative dividend yields on the securities included in the Market Measure or a Basket Component or any Underlying Stock, as applicable, increase, we anticipate that the market value of the notes will decrease.
- **Exchange Rate Movements and Volatility.** If the Market Measure of your notes or any Basket Component, as applicable, consists of or includes any non-U.S. Market Measures, changes in, and the volatility of, the exchange rates between the U.S. dollar and the relevant non-U.S. currency or currencies could have an adverse impact on the value of your notes, and the payments on the notes may depend in part on the relevant exchange rates. In addition, the correlation between the relevant exchange rate and any applicable non-U.S. Market Measure reflects the extent to which a percentage change in that exchange rate corresponds to a percentage change in the applicable non-U.S. Market Measure, and changes in these correlations may have an adverse impact on the value of your notes.
- **Our and the Guarantor’s Financial Condition and Creditworthiness.** Our and the Guarantor’s perceived creditworthiness, including any increases in our respective credit spreads and any actual or anticipated decreases in our respective credit ratings, may adversely affect the market value of the notes. In general, we expect the longer the amount of time that remains until maturity, the more significant the impact will be on the value of the notes. However, a decrease in our or the Guarantor’s credit spreads or an improvement in our or the Guarantor’s credit ratings will not necessarily increase the market value of the notes.
- **Time to Maturity.** There may be a disparity between the market value of the notes prior to maturity and their value at maturity. This disparity is often called a time “value,” “premium,” or “discount,” and reflects expectations concerning the value of the Market Measure prior to the maturity date. As the time to maturity decreases, this disparity may decrease, such that the value of the notes will approach the expected Redemption Amount to be paid at maturity.

The calculation agent, which is an affiliate of ours, will have the authority to make determinations that could affect the market value of your notes, when your notes mature and the amount, if any, payable on your notes. As of the date of this product supplement, GS&Co. is serving as the calculation agent for the notes. As calculation agent for your notes, GS&Co. will make all determinations with respect to the notes as specified in the applicable term sheet, including whether a Market Disruption Event has occurred and in some cases the levels of the Market Measure or Basket Components. The calculation agent also has discretion in making certain adjustments relating to a discontinuation or modification of a Market Measure that is an Index or Underlying Fund and certain adjustments relating to anti-dilution with respect to a Market Measure that is an Underlying Stock or Underlying Fund. 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. GS&Co. will not have any obligation to consider your interests as a holder of the notes in exercising its discretion as calculation agent under the notes. 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 GS Finance Corp.

Conflict-related Risks

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

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. As we describe under “Use of Proceeds” and “Hedging” below, Goldman Sachs has hedged or expects to hedge our obligations under the notes by purchasing futures and/or other instruments linked to the Market Measure or Basket Components or underlying assets thereof, or, if applicable, the currencies in which Market Measure is denominated, as applicable. 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 Market Measure or Basket Components or underlying assets thereof, as applicable, at any time and from time to time, and to unwind the hedge by selling any of the foregoing on or before the final calculation day 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 Market Measure-linked notes whose returns are linked to changes in the level of the Market Measure or Basket Components or underlying assets thereof, as applicable.

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

Any of these hedging or other activities may adversely affect the levels of the Market Measure or Basket Components—directly or, in the case of a Market Measure that is an Index or Underlying Fund, indirectly by affecting the price of the underlying assets—and therefore the market value of your notes and the amount we will pay on your notes, if any. 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. See the applicable term sheet and the applicable product supplement, if any, for a further discussion of transactions in which Goldman Sachs may engage.

Goldman Sachs' trading and investment activities for its own account or for its clients, or the trading and investment activities of our distributors or their affiliates, could negatively impact investors in the notes. Goldman Sachs is a global financial institution that delivers a broad range of financial services to a large 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, or any similar activities of our distributors or their affiliates, 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 or our distributors or their affiliates 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 Market Measure or Basket Components or underlying assets thereof, as applicable. 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. The same may be true as to our distributors or their affiliates.

Goldman Sachs' market-making activities, or the market-making activities of our distributors or their affiliates, 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 Market Measure or Basket Components or underlying assets thereof, as applicable, securities and instruments similar to or linked to the foregoing or the currencies in which they are denominated. Market making is an activity where Goldman Sachs buys and sells on behalf of customers, or for its own account, to satisfy the expected demand of customers. By its nature, market making involves facilitating transactions among market participants that have differing views of securities and instruments. As a result, you should expect that Goldman Sachs will take positions that are inconsistent with, or adverse to, the investment objectives of investors in the notes. The foregoing may also be true as to our distributors or their affiliates.

If Goldman Sachs or our distributors or their affiliates becomes a holder of any securities of the Market Measure or Basket Components or underlying assets thereof, as applicable, 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 or the personnel of our distributors or their affiliates 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. Our distributors or their affiliates may also engage in similar activities or recommend various investment strategies. 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 Market Measure or Basket Components or underlying assets thereof, as applicable, 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 our distributors or their affiliates will have or

develop independent views of the Market Measure or Basket Components or underlying assets thereof, as applicable, the relevant industry or other market trends, which may not be aligned with the views and objectives of investors in the notes.

Goldman Sachs and our distributors or their affiliates regularly provide services to, or otherwise have business relationships with, a broad client base, which may include the sponsors of the Market Measure or Basket Components, as applicable, the investment advisors of the Market Measure or Basket Components, as applicable, or the issuers of the Market Measure or the underlying assets or other entities that are involved in the transaction. Goldman Sachs and our distributors or their affiliates regularly provide financial advisory, investment advisory and transactional services to a substantial and diversified client base, and you should assume that Goldman Sachs and our distributors or their affiliates will, at present or in the future, provide such services or otherwise engage in transactions with, among others, the sponsors of the Market Measure or Basket Components, as applicable, the investment advisors of the Market Measure or Basket Components, or the issuers of the Market Measure or underlying assets, 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 and our distributors or their affiliates, 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 Market Measure or Basket Components or underlying assets thereof, 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 personnel of Goldman Sachs or our distributors or their affiliates may have access to confidential material non-public information about these parties that would not be disclosed to employees that were not working on such transactions as such entities have established internal information barriers that are designed to preserve the confidentiality of non-public information. Therefore, any such confidential material non-public information received by such entities would not be shared with 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 or our distributors or their affiliates receive 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 and our distributors or their affiliates 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 or our distributors or their affiliates 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 our distributors or their affiliates. A completed offering may reduce Goldman Sachs' existing exposure to the Market Measure or Basket Components or underlying assets thereof, as applicable, securities and instruments similar to or linked to the foregoing or the currencies in which they are denominated, including exposure gained through hedging transactions in anticipation of this offering. An offering of notes will effectively transfer a portion of Goldman Sachs' exposure (and indirectly transfer the exposure of Goldman Sachs' hedging or other counterparties) to investors in the notes.

The terms of the offering (including the selection of the Market Measure or Basket Components, underlying assets and currencies, as applicable, and the establishment of other transaction terms) may have been selected in order to serve the investment or other objectives of Goldman Sachs or our distributors or their affiliates or another client or counterparty thereof. In such a case, Goldman Sachs or our distributors or their affiliates 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.

Market Measure-related Risks

No Index Publisher or investment advisor of a Market Measure or the Underlying Index tracked by such Market Measure will have any obligations relating to the notes. No Index Publisher or investment advisor of a Market Measure or the Underlying Index tracked by such Market Measure will have any financial or legal obligation with respect to the notes or the amounts to be paid to you, including any obligation to take our needs or the needs of noteholders into consideration for any reason, including taking any actions that

might adversely affect the value of the Market Measure or the value of the notes. None of the foregoing will receive any of the proceeds from any offering of the notes nor will they be responsible for, or participate in, the offering of the notes. None of the foregoing will be responsible for, or participate in, the determination or calculation of the amount receivable by holders of the notes.

Our offering of the notes does not constitute a recommendation of the Market Measure. You should not take our offering of the notes as an expression of our views or the views of our distributors or their affiliates about how any Market Measure or Basket Component will perform in the future or as a recommendation to invest in any Market Measure or Basket Component, including through an investment in the notes. As we are part of a global financial institution, we, and our affiliates may, and often do, have positions (both long and short) in the Market Measure or the Basket Components that may conflict with an investment in the notes. The same may be true as to our distributors or their affiliates. You should undertake an independent determination of whether an investment in the notes is suitable for you in light of your specific investment objectives, risk tolerance and financial resources.

Exchange rate movements may adversely impact the value of the notes. If any security or commodity represented by a Market Measure or a Basket Component, as applicable, is traded in a currency other than U.S. dollars, and, for purposes of calculating the value of the Market Measure, is converted into U.S. dollars, then the value of the Market Measure may depend in part on the relevant exchange rates. If the value of the U.S. dollar strengthens against the currencies of those underlying assets, the value of the applicable Market Measure may be adversely affected and payments on the notes may be reduced.

Exchange rate movements may be impacted particularly by existing and expected rates of inflation and interest rate levels; political, civil or military unrest; the balance of payments between countries; and the extent of governmental surpluses or deficits in the relevant countries and the United States. All of these factors are in turn sensitive to the monetary, fiscal and trade policies pursued by the governments of those countries and the United States and other countries important to international trade and finance.

If the Market Measure or a Basket Component, as applicable, to which your notes are linked includes equity securities traded on foreign exchanges, or if shares of an Underlying Company are also listed on a foreign exchange your return may be affected by factors affecting international securities markets. The value of securities traded outside of the United States may be adversely affected by a variety of factors relating to the relevant securities markets. Factors which could affect those markets, and therefore the return on your notes, include:

- **Market Liquidity and Volatility.** The relevant foreign securities markets may be less liquid and/or more volatile than U.S. or other securities markets and may be affected by market developments in different ways than U.S. or other securities markets.
- **Political, Economic and Other Factors.** The prices and performance of securities of companies in foreign countries may be affected by political, economic, financial, and social factors in those regions. Direct or indirect government intervention to stabilize a particular securities market and cross-shareholdings in companies in the relevant foreign markets may affect prices and the volume of trading in those markets. In addition, recent or future changes in government, economic and fiscal policies in the relevant jurisdictions, the possible imposition of, or changes in, currency exchange laws, or other laws or restrictions, and possible fluctuations in the rate of exchange between currencies, are factors that could adversely affect the relevant securities markets. The relevant foreign economies may differ from the U.S. economy in economic factors such as growth of gross national product, rate of inflation, capital reinvestment, resources and self-sufficiency.

In particular, many emerging nations are undergoing rapid change involving the restructuring of economic, political, financial and legal systems. Regulatory and tax environments may be subject to change without review or appeal, and many emerging markets suffer from underdevelopment of capital markets and tax systems. In addition, in some of these nations, issuers of the relevant securities face the threat of expropriation of their assets and/or nationalization of their businesses. The economic and financial data about some of these countries may be unreliable.

- **Publicly Available Information.** There is generally less publicly available information about foreign companies than about U.S. companies that are subject to the reporting requirements of the SEC. Additionally, the accounting, auditing and financial reporting standards and requirements applicable to foreign companies may differ from those applicable to U.S. companies.

Additional Risks Relating to Indices

The policies of the applicable Index Publisher and changes that affect such Market Measure or underlying assets comprising such Market Measure, could affect the amount payable on your notes and their market value. Unless otherwise specified in the applicable term sheet, the policies of the applicable Index Publisher concerning the calculation of the level of a Market Measure to which your notes are linked, additions, deletions or substitutions of the underlying assets comprising such Market Measure, and the manner in which changes affecting the underlying assets or their issuers, such as stock dividends, reorganizations or mergers, are reflected in the level of the Market Measure, could affect the level of the applicable Market Measure and, therefore, the amount payable on your notes and the market value of your notes. The amount payable on your notes and their market value could also be affected if the applicable Index Publisher changes these policies, for example, by changing the manner in which it calculates the level of the Market Measure or the method by which it constructs the Market Measure, or if the Index Publisher discontinues or suspends calculation or publication of the level of the Market Measure, in which case it may become difficult to determine the market value of your notes. If events such as these occur, the calculation agent — which initially will be GS&Co., our affiliate — may determine the level of the Market Measure — and thus the amount payable on your notes — in a manner it considers appropriate, in its sole discretion. We describe the discretion that the calculation agent will have in determining a Market Measure level on any Market Measure Business Day and the amount payable on your notes more fully under “Description of the Notes—Discontinuance of an Index” below.

Except to the extent The Goldman Sachs Group, Inc. or our distributors or their affiliates is one of the companies whose common stock(s) comprise the applicable Market Measure, and except to the extent that we or our affiliates or our distributors or their affiliates may currently or in the future own securities of, or engage in business with, the applicable Index Publisher or the issuers of the underlying assets, there is no affiliation between the issuers of the underlying assets or such Index Publisher and us or our distributors or their affiliates. The common stock of The Goldman Sachs Group, Inc. or the common stock of our distributors or their affiliates may be represented in any number of Indices. In addition, we or our affiliates or our distributors or their affiliates may currently or from time to time in the future own securities of, or engage in business with, the applicable Index Publisher or the issuers of the underlying assets. Unless otherwise disclosed in the applicable term sheet, we and our distributors or their affiliates are not otherwise affiliated with the issuers of the underlying assets or the Index Publisher. Neither we nor any of our affiliates or our distributors or their affiliates have the ability to control the actions of any Index Publisher. Neither we nor any of our affiliates or our distributors or their affiliates have participated in the preparation of any publicly available information or made any “due diligence” investigation or inquiry with respect to any Market Measure or issuer of any underlying asset. You, as an investor in your notes, should make your own investigation into the Market Measure and the issuers of the underlying assets.

Neither the Index Publisher nor the issuer of any other underlying asset is involved in the offering of your notes in any way and none of them have any obligation of any sort with respect to your notes. Thus, neither the Index Publisher nor the issuer of any underlying asset has any obligation to take your interests into consideration for any reason, including in taking any corporate actions that might affect the market value of your notes.

Additional Risks Relating to Underlying Funds

The Policies of the investment advisor and changes that affect the Market Measure, or the Underlying Index tracked by such Market Measure, could affect the amount payable on your notes and their market value. Unless otherwise specified in the applicable term sheet, the policies of the applicable investment advisor concerning the Market Measure, the method by which such Market Measure attempts to track the index underlying such Market Measure (“**Underlying Index**”), the investment objective, the other investment policies of the investment advisor, and similar matters could affect the level of the such Market Measure and, therefore, the amount payable on your notes and the market value of your notes. If events such as these occur, the calculation agent — which initially will be GS&Co., our affiliate — may determine the Market Measure or levels of the Market Measure — and thus the amount payable on your notes — in a manner it considers appropriate, in its sole discretion. We describe the discretion that the calculation agent will have in determining the levels of the Market Measure on any Market Measure Business Day and the amount payable on your notes more fully under “Description of the Notes—Discontinuance of or Material Change to an Underlying Fund” below.

Except to the extent The Goldman Sachs Group, Inc. or our distributors or their affiliates is one of the companies whose common stock(s) are held by an Underlying Fund and one of the companies whose common stock(s) comprise its Underlying Index, and except to the extent that GS&Co. and one or more of our other affiliates or our distributors or their affiliates act as authorized participants in the distribution of, and, at any time, may hold, shares of, the applicable Underlying Fund to which your notes are linked, there is no affiliation between the investment advisor of such Underlying Fund or the Sponsor of Its Underlying Index and us or our distributors or their affiliates. The common stock of The Goldman Sachs Group, Inc. or the common stock of our distributors or their affiliates may be held by any number of Underlying Funds and represented in their respective Underlying Indices. If a Market Measure to which your notes are linked is an Underlying Fund, GS&Co. and one or more of our other affiliates or our distributors or their affiliates may act, from time to time, as authorized participants in the distribution of shares of such Underlying Fund, and, at any time, may hold shares of the Underlying Fund. Unless otherwise disclosed in the applicable term sheet, Goldman Sachs and our distributors or their affiliates is not otherwise affiliated with the investment advisor of such Underlying Fund or the issuers of the underlying assets. Our affiliates and our distributors or their affiliates may currently or from time to time in the future engage in business with the investment advisor of such Underlying Fund, the sponsor of its Underlying Index or the issuers of the underlying assets. Nevertheless, neither we nor any of our affiliates or our distributors or their affiliates have the ability to control the actions of any investment advisor of an Underlying Fund or the issuers of the underlying assets of an Underlying Fund. Neither we nor any of our affiliates or our distributors or their affiliates have participated in the preparation of any publicly available information or made any “due diligence” investigation or inquiry with respect to the Underlying Fund, its Underlying Index or the issuers of the underlying assets. You, as an investor in your notes, should make your own investigation into such Underlying Fund, its Underlying Index and the issuers of the underlying assets.

Neither the investment advisor of such Underlying Fund nor the issuer of any underlying asset is involved in the offering of your notes in any way and none of them have any obligation of any sort with respect to your notes. Neither the Underlying Fund investment advisor nor any such issuer has 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.

Risks associated with the applicable Underlying Index, or underlying assets of an Underlying Fund, as applicable, will affect the value of that Underlying Fund and hence the value of the notes. An Underlying Fund is a fund that may hold a variety of underlying assets, including stocks, bonds, commodities or derivative instruments, and its performance may be designed to track the performance of an Underlying Index. While the notes are linked to an Underlying Fund and not to its underlying assets or Underlying Index, risks associated with its underlying assets or Underlying Index will affect the share or unit price of that Underlying Fund and hence the value of the notes.

The value of the shares of an Underlying Fund that is a passively-managed Underlying Fund may not track the level of the Underlying Index. Although the trading characteristics and valuations of shares of a passively-managed Underlying Fund will usually mirror the characteristics and valuations of its Underlying Index, the value of the shares of such Underlying Fund may not closely track the level of its Underlying Index. The value of a share of an Underlying Fund may reflect transaction costs and fees incurred or imposed by the issuer of the Underlying Fund that are not included in the calculation of its Underlying Index. Additionally, because the Underlying Fund may not actually hold all of the stocks that comprise its Underlying Index, but may invest in a representative sample of securities which have a similar investment profile as the stocks that comprise its Underlying Index, and may hold investments that are not included in its Underlying Index, the Underlying Fund may not fully replicate the performance of its Underlying Index.

There is no assurance that an active trading market will continue for the Underlying Fund or that there will be liquidity in any such trading market; further, the Underlying Fund is subject to management risks, securities lending risks and custody risks. Although all of the shares of an Underlying Fund may be listed for trading on a United States securities exchange and a number of similar products have been traded on such securities exchanges for varying periods of time, there is no assurance that an active trading market will continue for the shares of the Underlying Fund or that there will be liquidity in any such trading market.

In addition, an Underlying Fund is subject to management risk, which is the risk that the investment advisor’s investment strategy, the implementation of which is subject to a number of constraints, may not

produce the intended results. In addition, the investment advisor may be permitted to engage in securities lending with respect to a portion of an Underlying Fund's total assets, which could subject the Underlying Fund to the risk that the borrower of such loaned securities fails to return the securities in a timely manner or at all.

In addition, an Underlying Fund 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. If your notes are linked to an Underlying Fund that is an Underlying Fund which is listed or has underlying assets comprising the Underlying Fund listed in a country that may be considered to be a country with an emerging market, 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.

Further, each Underlying Fund is subject to listing standards adopted by the applicable securities exchange. There can be no assurance that an Underlying Fund will continue to meet the applicable listing requirements, or that an Underlying Fund will not be delisted.

An Underlying Fund and its Underlying Index are different and the performance of an Underlying Fund may not correlate with the performance of its Underlying Index. Although an Underlying Fund generally invests in all of the securities included in its Underlying Index, an Underlying Fund may not hold all or substantially all of the equity securities included in its Underlying Index and may hold securities or assets not included in its Underlying Index. For example, it is possible that an Underlying Fund may not always fully replicate the performance of its Underlying Index due to unavailability of certain securities included in its Underlying Index in the secondary market or due to other extraordinary circumstances (e.g., if trading in a security has been halted). Further, although an Underlying Fund seeks to track the performance of its Underlying Index as closely as possible, such Underlying Fund's return may not match or achieve a high degree of correlation with the return of its Underlying Index due to, among other things, transaction costs.

In addition, the performance of an Underlying Fund will reflect additional transaction costs and fees that are not included in the calculation of its Underlying Index and this may increase the tracking error of such Underlying Fund. Also, corporate actions with respect to the sample of equity securities (such as mergers and spin-offs) may impact the performance differential between an Underlying Fund and its Underlying Index. Finally, because the shares of an Underlying Fund are traded on a U.S. securities exchange and are subject to market supply and investor demand, the market value of one share of such Underlying Fund may differ from the net asset value per share of such Underlying Fund.

For all of the foregoing reasons, the performance of an Underlying Fund may not correlate with the performance of its Underlying Index. Consequently, the return on the notes will not be the same as investing directly in an Underlying Fund or in its Underlying Index or in the underlying assets comprising such Underlying Fund or in the underlying assets comprising such Underlying Index, and will not be the same as investing in a debt security with a payment at maturity linked to the performance of its Underlying Index.

If an Underlying Fund holds underlying assets traded on foreign exchanges, time zone differences may create discrepancies between the values of those underlying assets and the value of the notes. As a result of the time zone difference, if applicable, between the cities where the underlying assets held by an Underlying Fund trade and the cities in which shares or units of that Underlying Fund are traded, there may be discrepancies between the values of the relevant underlying assets and the trading prices of that Underlying Fund. In addition, there may be periods when the foreign exchange markets are closed for trading (for example during holidays in a country other than the United States) that may result in the values of the relevant non-U.S. underlying assets remaining unchanged for multiple Market Measure Business Days in the locations where the notes (or any related Underlying Fund) trade. Conversely, there may be periods in which the foreign exchange markets are open, but the securities markets in which the notes (or any related Underlying Fund) trade are closed.

The payment on the notes will not be adjusted for all events that could affect an Underlying Fund. The Price Multiplier(s), the value of an Underlying Fund, the amount payable on the notes, and other terms of the notes may be adjusted for specified events affecting any Underlying Fund, as described in the section entitled "Description of the Notes—Anti-Dilution and Discontinuance Adjustments Relating to Underlying Funds." However, these adjustments do not cover all events that could affect the market price of

an Underlying Fund. The occurrence of any event that does not require the calculation agent to adjust the applicable Price Multiplier or the amount payable on the notes may adversely affect the Closing Market Price of any Underlying Fund and the amount payable on the notes, and, as a result, the market value of the notes.

Additional Risks Relating to Underlying Stocks

There is no affiliation between the issuer of an Underlying Stock and us or our distributors or their affiliates. None of Goldman Sachs or our distributors or their affiliates is affiliated with the issuer of any Underlying Stock to which your notes may be linked. However, we or our affiliates or our distributors or their affiliates may currently or from time to time in the future engage in business with such issuer. Neither we nor any of our affiliates or our distributors or their affiliates have the ability to control the actions of any issuer of an Underlying Stock to which your notes may be linked. Neither we nor any of our affiliates or our distributors or their affiliates have participated in the preparation of any publicly available information or made any “due diligence” investigation or inquiry with respect to the issuer. You, as an investor in your notes, should make your own investigation into the issuer of such Underlying Stock.

The issuer of such Underlying Stock is not involved in the offering of your notes in any way and does not have any obligation of any sort with respect to your notes. Thus, the issuer of the Underlying Stock does not have any obligation to take your interests into consideration for any reason, including in taking or not taking any corporate actions that might affect the value of your notes.

We will not hold shares of an Underlying Stock to which your notes are linked for your benefit. The indenture governing your notes does not contain any restriction on our ability or the ability of any of our affiliates to sell, pledge or otherwise convey a share or shares of an Underlying Stock to which your notes are linked that is acquired by us or them. Neither we nor our affiliates will pledge or otherwise hold shares of such Underlying Stock for your benefit in order to enable you to exchange your notes for shares under any circumstances. Consequently, in the event of our bankruptcy, insolvency or liquidation, any shares of such Underlying Stock owned by us will be subject to the claims of our creditors generally and will not be available for your benefit specifically.

In some circumstances the amount payable on your notes may be based on the securities of another company and not the issuer of the Underlying Stock. Following certain corporate events relating to such Underlying Stock where its issuer is not the surviving entity, the amount payable on your notes may be based on the securities of a successor to such issuer or any cash or any other assets distributed to holders of shares of such Underlying Stock in such corporate event. The occurrence of these corporate events and the consequent adjustments may materially and adversely affect the value of your notes. We describe the specific corporate events that can lead to these adjustments and the procedures for selecting distribution property (as described above) under “Description of the Notes — Anti-dilution Adjustments Relating to Underlying Stocks” below.

The payment on the notes will not be adjusted for all corporate events that could affect an Underlying Company. The Price Multiplier(s), the values of an Underlying Stock, the amount payable on the notes, and other terms of the notes may be adjusted for the specified corporate events affecting an Underlying Stock, as described in the section entitled “Description of the Notes—Anti-Dilution Adjustments for Underlying Stocks.” However, these adjustments do not cover all corporate events that could affect the market price of an Underlying Stock, such as offerings of equity securities for cash or in connection with certain acquisition transactions. The occurrence of any event that does not require the calculation agent to adjust the applicable Price Multiplier or any other terms of the notes may adversely affect the Closing Market Price of an Underlying Stock and the amount payable on the notes, and, as a result, the market value of the notes.

Risks Relating to Underlying Stocks That Are ADRs

There are important differences between the rights of holders of ADRs and the rights of holders of the securities represented by the ADRs. You should be aware that if the amount payable on the notes is linked to the price of the ADRs and not to the relevant securities that they represent. There are important differences between the rights of holders of ADRs and the rights of holders of the securities represented by the ADRs. Each ADR is a security evidenced by an American depositary receipt that typically represents one or a fraction of one represented security. The ADRs are issued pursuant to a deposit agreement, which sets forth the rights and responsibilities of the ADR depositary, the applicable underlying stock issuer, and holders of the ADRs, which may be different from the rights of holders of the applicable securities represented by the ADRs. For example, an underlying stock issuer may make distributions in respect of the securities

represented by the ADRs that are not passed on to the holders of its ADRs. The trading patterns of the ADRs will generally reflect the characteristics and valuations of the applicable securities represented by the ADRs; however, the value of the ADRs may not completely track the value of those shares. In addition, trading volume and pricing on the applicable non-U.S. exchange may, but will not necessarily, have similar characteristics as the ADRs. For example, certain factors may increase or decrease the public float of the ADRs and, as a result, the ADRs may have less liquidity or lower market value than the applicable securities represented by the ADRs. Any such differences between the rights of holders of the ADRs and the rights of holders of the securities represented by the ADRs may be significant and may materially and adversely affect the value of the ADRs and, as a result, the notes.

Exchange rate movements may adversely affect the value of an Underlying Stock that is an ADR. If an Underlying Stock is an ADR, the market price of that Underlying Stock will generally track the U.S. dollar value of the market price of its underlying equity securities. Therefore, if the value of the related foreign currency in which the underlying equity securities are traded decreases relative to the U.S. dollar, the market price of the Underlying Stock may decrease while the market price of the underlying equity securities remains stable or increases, or does not decrease to the same extent. As a result, changes in, and the volatility of, the exchange rates between the U.S. dollar and the relevant non-U.S. currency could have an adverse impact on the value of that Underlying Stock and consequently, the value of your notes and the amount payable on the notes.

Exchange rate movements may be impacted particularly by existing and expected rates of inflation and interest rate levels; political, civil or military unrest; the balance of payments between countries; and the extent of governmental surpluses or deficits in the relevant countries and the United States. All of these factors are in turn sensitive to the monetary, fiscal and trade policies pursued by the governments of those countries and the United States and other countries important to international trade and finance.

Adverse trading conditions in the applicable non-U.S. market may negatively affect the value of an Underlying Stock that is an ADR. Holders of an Underlying Company's ADRs may usually surrender the ADRs in order to receive and trade the underlying equity securities. This provision permits investors in the ADRs to take advantage of price differentials between markets. However, this provision may also cause the market prices of the applicable Underlying Stock to more closely correspond with the values of the equity securities in the applicable non-U.S. markets. As a result, a market outside of the United States for the underlying equity securities that is not liquid may also result in an illiquid market for the ADRs, which may negatively impact the value of such ADRs and, consequently, the value of your notes.

Delisting of an Underlying Stock that is an ADR may adversely affect the value of the notes. If an Underlying Stock that is an ADR is no longer listed or admitted to trading on a U.S. securities exchange registered under the Exchange Act or included in the Over-The-Counter Bulletin Board Service (the "**OTC Bulletin Board**") operated by FINRA, or if the ADR facility between the Underlying Company and the ADR depository is terminated for any reason, that Underlying Stock will be deemed to be the Underlying Company's equity securities rather than the ADRs, and the calculation agent will determine the price of the Underlying Stock by reference to those equity securities, as described below under "Description of the Notes—Delisting of ADRs or Termination of ADR Facility." Replacing the original ADRs with the underlying equity securities may adversely affect the value of the notes and the amounts payable on the notes.

Other Risk Factors Relating to the Applicable Market Measure

The applicable term sheet may set forth additional risk factors as to the Market Measure or Basket Components, as applicable, that you should review prior to purchasing the notes.

Tax-related Risks

The U.S. federal income tax consequences of an investment in the notes are complex and, in some cases, uncertain and may be adverse to a holder of the notes. The tax consequences of an investment in your notes are complex and, in some cases, are uncertain, both as to the timing and character of any inclusion in income in respect of your notes. No ruling will be requested from the IRS with respect to the notes and no assurance can be given that the IRS will agree with the statements made in the section entitled "U.S. Federal Income Tax Summary." **You are urged to consult with your own tax advisor regarding all aspects of the U.S. federal income tax consequences of investing in the notes.**

USE OF PROCEEDS

We intend to lend the net proceeds from the sale of the 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 notes, we and/or our affiliates have entered into, or expect to enter into, hedging transactions involving purchases of the Market Measure or Basket Components (in the case of Underlying Stocks and Underlying Funds), the underlying assets, listed or over-the-counter options, futures and/or other instruments linked to the Market Measure or Basket Components, the underlying assets, foreign currencies or other instruments linked to the Market Measure or Basket Components, the underlying assets and Indices designed to track the performance of the relevant equity markets or components of such markets on or before the pricing date. In addition, from time to time after we issue the notes, we and/or our affiliates expect to enter into additional hedging transactions and to unwind those we have entered into, in connection with the notes and perhaps in connection with other notes we issue, some of which may have returns linked to the Market Measure or any one or more of the Basket Components, the underlying assets or foreign currencies. 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 Market Measure, some or all of the Basket Components or some or all underlying assets or foreign currencies;
- may take or dispose of positions in the securities of the issuers of the underlying assets themselves or the Market Measure or Basket Components (in the case of Underlying Stocks and Underlying Funds);
- may take or dispose of positions in listed or over-the-counter options or other instruments based on the Market Measure or Basket Components designed to track the performance of the stock exchanges or other components of the equity markets;
- may take short positions in the underlying assets 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; and/or
- may acquire or dispose of U.S. dollars in foreign exchange transactions involving the Japanese yen, euro, British pound sterling or other foreign currency or currencies.

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 notes and perhaps relating to other notes with returns linked to the Market Measure or Basket Components, the underlying assets or the foreign currencies. We expect these steps to involve sales of instruments linked to the Market Measure or Basket Components, the underlying assets or the foreign currencies on or shortly before the final calculation day. These steps also may involve sales and/or purchases of the Market Measure or Basket Components or some or all of the underlying assets or listed or over-the-counter options, futures or other instruments linked to the Market Measure or any one or more of the Basket Components or the foreign currencies, some or all of the underlying assets 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, as applicable.

DESCRIPTION OF THE NOTES

General

Each issue of the notes will be part of a series of medium-term notes entitled “Medium-Term Notes, Series F” that will be issued under the senior debt indenture dated October 10, 2008, as supplemented by the First Supplemental Indenture, dated as of February 20, 2015, each among us, The Goldman Sachs Group, Inc., as guarantor, and The Bank of New York Mellon, as trustee. The senior debt indenture is described more fully in the accompanying prospectus and prospectus supplement. The following description of the notes supplements and, to the extent it is inconsistent with, supersedes the description of the general terms and provisions of the notes and debt securities set forth under the headings “Description of Notes We May Offer” in the prospectus supplement and “Description of Debt Securities We May Offer” in the prospectus. These documents should be read in connection with the applicable term sheet.

Our payment obligations on the notes are fully and unconditionally guaranteed by the Guarantor. The notes will rank equally in right of payment with all of our other unsecured and unsubordinated obligations from time to time outstanding, except obligations that are subject to any priorities or preferences by law. The guarantee of the notes will rank equally in right of payment with all other unsecured and unsubordinated obligations of the Guarantor from time to time outstanding, except obligations that are subject to any priorities or preferences by law, and senior in right of payment to its subordinated obligations. Any payments due on the notes, including any repayment of principal, are subject to our credit risk, as issuer, and the credit risk of The Goldman Sachs Group, Inc., as guarantor.

The maturity date of the notes and the aggregate principal amount of each issue of the notes will be stated in the applicable term sheet. If any scheduled payment date, including the maturity date, is not a business day, we will make the required payment on the next business day, and no interest will accrue as a result of such delay.

The notes may not guarantee the return of principal at maturity. The notes will be payable only in U.S. dollars. Except as set forth in the applicable term sheet and as discussed below, the notes are not redeemable by us or repayable at the option of any holder. The notes are not subject to any sinking fund.

We will issue the notes in denominations of whole units. Unless otherwise set forth in the applicable term sheet, each unit will have a principal amount of \$10.00. The CUSIP number for each issue of the notes will be set forth in the applicable term sheet. You may transfer the notes only in whole units.

Certain Terms of the Notes

Coupons. We may issue notes that are coupon-bearing, or that do not bear coupons. We may issue notes in which the payment of coupons for one or more periods is contingent upon the occurrence of one or more specified events. For so long as the notes are held in book-entry only form, we will pay coupons to the persons in whose names the notes are registered at the close of business one business day prior to each payment date. If the notes are not held in book-entry only form, the record dates will be the first day of the month in which the applicable coupon payment is due. The applicable term sheet will set forth whether the notes are coupon-bearing and, if so, the applicable coupon and calculation method.

Payment(s) on the Notes. The amount payable at maturity, or the “**Redemption Amount**”, may be determined according to one or more “**calculation days**” occurring shortly before the maturity date of the notes (such period, the “**Maturity Valuation Period**”). We may also issue notes in which coupon payments, the Redemption Amount, or payment in connection with redemption of the notes, is determined according to one or more “**Observation Dates**” occurring during the term of the notes. If so specified in the applicable term sheet, we may use a different term to refer to calculation days or Observation Dates. The Redemption Amount and any amounts payable in connection with redemption of the notes will be paid to the person in whose names the notes are registered on the applicable payment date or the maturity date. The applicable term sheet will provide examples of payments on the notes.

Redemption Prior to Maturity. If so specified in the applicable term sheet, your notes may be called prior to maturity at our option, or may be automatically called prior to maturity upon the occurrence of certain specified events, in each case in whole or in part, on the date or dates as specified in the applicable term sheet and, if called at our option, upon such notice as specified in the applicable term sheet. The applicable term sheet will also set forth the manner in which any payment due upon such early redemption will be calculated. Unless otherwise set forth in the applicable term sheet, the notes are not subject to redemption at the option of the holder prior to maturity.

Business Days. When we refer to a business day with respect to your notes, we mean each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in New York City generally are authorized or obligated by law, regulation or executive order to close. A day is a scheduled business day if, as of the pricing date, such day is scheduled to be a Monday, Tuesday, Wednesday, Thursday or Friday that is not a day on which banking institutions in New York City generally are authorized or obligated by law, regulation or executive order to close.

Market Measure Business Days. Unless otherwise specified in the applicable term sheet, as to any Index, a “**Market Measure Business Day**” means a day on which (1) the respective securities exchange on which each of the securities that comprise such Index has its primary listing is open for trading and (2) the Index(es) (or any successor) is calculated and published. Unless otherwise specified in the applicable term sheet, as to any Underlying Fund, a “**Market Measure Business Day**” means a day on which the securities exchange on which that Underlying Fund has its primary listing is open for trading. Unless otherwise specified in the applicable term sheet, as to any Underlying Stock, a “**Market Measure Business Day**” means a day on which trading is generally conducted (or was scheduled to have been generally conducted, but for the occurrence of a Market Disruption Event) on the securities exchange on which that Underlying Stock has its primary listing.

Unless otherwise specified in the applicable term sheet or unless the context otherwise requires, when we refer to a scheduled Market Measure Business Day with respect to any Market Measure, we mean a day that is scheduled to be such a Market Measure Business Day as of the pricing date.

Events Relating to Observation Dates. If a scheduled Observation Date is determined by the calculation agent not to be a Market Measure Business Day by reason of an extraordinary event, occurrence, declaration or otherwise, or, if there is a Market Disruption Event on that day, the applicable Observation Date will be the immediately succeeding Market Measure Business Day during which no Market Disruption Event occurs or is continuing; provided that the closing level or Closing Market Price of the applicable Index, Underlying Fund or Underlying Stock for such Observation Date will not be determined on a date later than the fifth scheduled Market Measure Business Day after the scheduled Observation Date, and if such date is not a Market Measure Business Day, or if there is a Market Disruption Event on that date, the calculation agent will determine (or, if not determinable, estimate) the closing level or Closing Market Price of the applicable Index, Underlying Fund or Underlying Stock for such Observation Date in a manner which the calculation agent considers commercially reasonable under the circumstances on that fifth scheduled Market Measure Business Day.

If, due to a Market Disruption Event or otherwise, a scheduled Observation Date is postponed, the applicable payment date will be postponed to the business day that is the same number of business days after such Observation Date as postponed as the number of business days from but excluding the originally scheduled Observation Date to and including the originally scheduled payment date.

Notwithstanding the foregoing, if a scheduled Observation Date overlaps with a calculation day during the Maturity Valuation Period and is determined by the calculation agent not to be a Market Measure Business Day by reason of an extraordinary event, occurrence, declaration or otherwise, or, if there is a Market Disruption Event on that day, such Observation Date will be postponed, and the closing level or the Closing Market Price of the applicable Index, Underlying Fund or Underlying Stock for such Observation Date will be determined, in accordance with the same procedures for such overlapped calculation day during the Maturity Valuation Period as described under “—Events Relating to Calculation Days” below.

For the avoidance of doubt, if your notes are linked to more than one Index, Underlying Fund or Underlying Stock, the occurrence of a Market Disruption Event or non-Market Measure Business Day as to any Index, Underlying Fund or Underlying Stock will not impact any other Index, Underlying Fund or Underlying Stock that is not so affected.

Events Relating to Calculation Days.

Notes with a Maturity Valuation Period which Consists of Two or More Scheduled Calculation Days. If the Maturity Valuation Period for the notes consists of two or more scheduled calculation days and, with respect to an Index, Underlying Fund or Underlying Stock, (i) a Market Disruption Event occurs on a scheduled calculation day during the Maturity Valuation Period or (ii) any scheduled calculation day is determined by the calculation agent not to be a Market Measure Business Day by reason of an extraordinary event, occurrence, declaration, or otherwise (any such day in either (i) or (ii) being a “**non-calculation day**”), the closing level or the Closing Market Price, as applicable, of the Index, the Underlying Fund or the Underlying Stock for the applicable non-calculation day will be the closing level or the Closing Market Price, as applicable, of the Index, the Underlying Fund or the Underlying Stock on the next calculation day that occurs during the Maturity Valuation Period. For example, if the first and second scheduled calculation days during the Maturity Valuation Period are non-calculation days, then the closing level or the Closing Market Price, as applicable, of the Index, the Underlying Fund or the Underlying Stock on the next calculation day will also be deemed to be the closing level or the Closing Market Price, as applicable, of the Index, the Underlying Fund or the Underlying Stock on the first and second scheduled calculation days during the Maturity Valuation Period. If no further scheduled calculation days occur after a non-calculation day, or if every scheduled calculation day after that non-calculation day is also a non-calculation day, then the closing level or the Closing Market Price, as applicable, of the Index, the Underlying Fund or the Underlying Stock for that non-calculation day and each following non-calculation day, if any, will be determined (or, if not determinable, estimated) by the calculation agent in a manner which the calculation agent considers commercially reasonable under the circumstances on a date no later than the fifth scheduled Market Measure Business Day after such originally scheduled calculation day in the Maturity Valuation Period, regardless of the occurrence of a Market Disruption Event.

If, due to a Market Disruption Event or otherwise, the final calculation day in the Maturity Valuation Period is postponed, the stated Maturity Date will be postponed to the business day that is the same number of business days after such final calculation day as postponed as the number of business days from but excluding the originally scheduled final calculation day to and including the originally scheduled Maturity Date.

For the avoidance of doubt, if your notes are linked to more than one Index, Underlying Fund or Underlying Stock, the occurrence of a Market Disruption Event or non-Market Measure Business Day as to any Index, Underlying Fund or Underlying Stock will not impact any other Index, Underlying Fund or Underlying Stock that is not so affected.

Notes with a Maturity Valuation Period which Consists of Only One Scheduled Calculation Day. If the Maturity Valuation Period for the notes consists of only one scheduled calculation day and, with respect to an Index, Underlying Fund or Underlying Stock, the scheduled calculation day is determined by the calculation agent not to be a Market Measure Business Day by reason of an extraordinary event, occurrence, declaration or otherwise, or, if there is a Market Disruption Event on that day, the calculation day will be the immediately succeeding Market Measure Business Day during which no Market Disruption Event occurs or is continuing; provided that the closing level or Closing Market Price, as applicable, of the Index, the Underlying Fund or the Underlying Stock for such calculation date will be determined (or, if not determinable, estimated) by the calculation agent in a manner which the calculation agent considers commercially reasonable under the circumstances on a date no later than the fifth scheduled Market Measure Business Day after such originally scheduled calculation day, regardless of the occurrence of a Market Disruption Event or non-Market Measure Business Day on that fifth scheduled Market Measure Business Day.

If, due to a Market Disruption Event or otherwise, the final calculation day in the Maturity Valuation Period is postponed, the stated Maturity Date will be postponed to the business day that is the same number

of business days after such final calculation day as postponed as the number of business days from but excluding the originally scheduled final calculation day to and including the originally scheduled Maturity Date.

For the avoidance of doubt, if your notes are linked to more than one Index, Underlying Fund or Underlying Stock, the occurrence of a Market Disruption Event or non-Market Measure Business Day as to any Index, Underlying Fund or Underlying Stock will not impact any other Index, Underlying Fund or Underlying Stock that is not so affected.

The Market Measure

The applicable term sheet will set forth information as to the specific Market Measure, including information as to the historical values of the Market Measure or the Basket Components, as applicable. However, historical values of the Market Measure or the Basket Components are not indicative of its future performance or the performance of your notes.

An investment in the notes does not entitle you to any ownership interest in or any other rights with respect to the Market Measure or any of its underlying assets, including any voting rights, dividends paid, or other distributions made, or any other rights with respect to the Market Measure, a Basket Component or their respective underlying assets.

Any information regarding any Underlying Stock or any Underlying Company will be derived from publicly available documents. Any Underlying Stock, including an ADR, will be registered under the Exchange Act. Information provided to or filed with the SEC by any Underlying Company can be located through the SEC's website, www.sec.gov. None of us, the Guarantor, the selling agent or any of our or their affiliates will have independently verified the accuracy or completeness of any of the information or reports of an Underlying Company.

The selection of an Underlying Stock is not a recommendation to buy or sell the Underlying Stock. None of us, the Guarantor, the selling agent or any of our or their affiliates makes any representation to any purchaser of the notes as to the performance of any Underlying Stock.

Closing Market Price

The "**Closing Market Price**" for one share of an Underlying Fund or Underlying Stock (or one unit of any other security for which a Closing Market Price must be determined) on any Market Measure Business Day means any of the following:

- if the Underlying Fund or Underlying Stock (or such other security) is listed or admitted to trading on a national securities exchange, the last reported sale price, regular way (or, in the case of The Nasdaq Stock Market, the official closing price), of the principal trading session on that day on the principal U.S. securities exchange registered under the Securities Exchange Act of 1934, as amended, on which the Underlying Fund or Underlying Stock (or such other security) is listed or admitted to trading;
- if the Underlying Fund or Underlying Stock (or such other security) is not listed or admitted to trading on any national securities exchange but is included in the Over-The-Counter Bulletin Board (the "**OTC Bulletin Board**"), the last reported sale price of the principal trading session on the OTC Bulletin Board on that day;
- if the closing price of the Underlying Fund or Underlying Stock (or such other security) cannot be determined as set forth in the two bullet points above, and the Underlying Fund or Underlying Stock (or such other security) is listed or admitted to trading on a non-U.S. securities exchange or market, the last reported sale price, regular way, of the principal trading session on that day on the primary non-U.S. securities exchange or market on which the Underlying Fund or Underlying Stock (or such other security) is listed or admitted to trading (converted to U.S. dollars using such exchange rate as the calculation agent, in its sole discretion, determines to be commercially reasonable); or

- if the Closing Market Price cannot be determined as set forth in the prior bullets, the mean, as determined by the calculation agent, of the bid prices for the Underlying Fund or Underlying Stock (or such other security) obtained from as many dealers in that security (which may include us, GS&Co. and/or any of our affiliates), but not exceeding three, as will make the bid prices available to the calculation agent. If no such bid price can be obtained, the Closing Market Price will be determined (or, if not determinable, estimated) by the calculation agent in its sole discretion in a commercially reasonable manner.

Unless otherwise set forth in the applicable term sheet, for any applicable Market Measure Business Day under the terms of the notes, the value of an Underlying Fund or Underlying Stock will be determined by multiplying its Closing Market Price on that day by its **“Price Multiplier.”** The initial Price Multiplier for an Underlying Fund or Underlying Stock will be 1, unless otherwise set forth in the applicable term sheet. The Price Multiplier for each Underlying Fund will be subject to adjustment for certain events relating to that Underlying Fund as described in **“—Anti-Dilution and Discontinuance Adjustments Relating to Underlying Funds.”** The Price Multiplier for each Underlying Stock will be subject to adjustment for certain corporate events relating to that Underlying Stock as described in **“—Anti-Dilution Adjustments Relating to Underlying Stocks.”**

Market Disruption Events

As to any Index, a **“Market Disruption Event”** means one or more of the following events, as determined by the calculation agent in its sole discretion:

- (A) the suspension of or material limitation on trading, in each case, for more than two consecutive hours of trading, or during the one-half hour period preceding the close of trading, on the primary exchange where the securities included in the Index trade, as determined by the calculation agent (without taking into account any extended or after-hours trading session), in 20% or more of the securities which then comprise the Index or any successor index (as defined in **“—Discontinuance of an Index”**);
- (B) the suspension of or material limitation on trading, in each case, for more than two consecutive hours of trading, or during the one-half hour period preceding the close of trading, on the primary exchange that trades options contracts or futures contracts related to the Index, as determined by the calculation agent (without taking into account any extended or after-hours trading session), in options contracts or futures contracts related to the Index, or any successor index, whether by reason of movements in price otherwise exceeding levels permitted by the relevant exchange or otherwise; or
- (C) (i) component stocks constituting 20% or more, by weight, of the Index, or (ii) option or futures contracts, if available, relating to the Index, or to component stocks constituting 20% or more, by weight, of the Index, do not trade on what were the respective primary markets for those component stocks or contracts, as determined by the calculation agent in its sole discretion,

and, in the case of any of these events, the calculation agent determines in its sole discretion that the event could materially interfere with the ability of GS Finance Corp. or any of its affiliates or a similarly situated party to unwind all or a material portion of a hedge that could be effected with respect to the notes. For more information about hedging by GS Finance Corp. and/or any of its affiliates, see **“Use of Proceeds”** and **“Hedging”** below and/or in the applicable term sheet.

For the purpose of determining whether a Market Disruption Event as to any Index has occurred:

- (1) a limitation on the hours in a Market Measure Business Day and/or number of days of trading will not constitute a Market Disruption Event if it results from an announced change in the regular business hours of the relevant exchange;
- (2) a decision to permanently discontinue trading in the relevant futures or options contracts

related to the Index, or any successor index, will not constitute a Market Disruption Event;

- (3) a suspension in trading in a futures or options contract on the Index, or any successor index, by a major securities market by reason of (a) a price change violating limits set by that securities market, (b) an imbalance of orders relating to those contracts, or (c) a disparity in bid and ask quotes relating to those contracts will constitute a suspension of or material limitation on trading in futures or options contracts related to the Index, or any successor index;
- (4) a suspension of or material limitation on trading on the relevant exchange will not include any time when that exchange is closed for trading under ordinary circumstances; or
- (5) if applicable to Indices with component stocks listed on the NYSE, for the purpose of clause (A) above, any limitations on trading during significant market fluctuations under NYSE Rule 80B, or any applicable rule or regulation enacted or promulgated by the NYSE or any other self-regulatory organization or the SEC of similar scope as determined by the calculation agent, will be considered “material.”

As to any Underlying Fund, a “**Market Disruption Event**” means one or more of the following events, as determined by the calculation agent in its sole discretion:

- (A) the suspension of or material limitation on trading, in each case, for more than two consecutive hours of trading, or during the one-half hour period preceding the close of trading, of the shares or units of the Underlying Fund (or successor underlying fund, as defined in “—Anti-Dilution and Discontinuance Adjustments Relating to Underlying Funds—Discontinuance of or Material Change to an Underlying Fund”) on the primary exchange where such shares or units trade, as determined by the calculation agent (without taking into account any extended or after-hours trading session);
- (B) the suspension of or material limitation on trading, in each case, for more than two consecutive hours of trading, or during the one-half hour period preceding the close of trading, on the primary exchange that trades options contracts or futures contracts related to the shares or units of the Underlying Fund (or successor underlying fund) as determined by the calculation agent (without taking into account any extended or after-hours trading session), in options contracts or futures contracts related to the shares or units of the Underlying Fund;
- (C) the Underlying Fund does not trade on what was the primary market for the Underlying Fund, as determined by the calculation agent in its sole discretion;
- (D) with respect to an Underlying Fund that holds equity securities, the suspension of or material limitation on trading, in each case, for more than two consecutive hours of trading, or during the one-half hour period preceding the close of trading, on the primary exchange where component stocks of the relevant Underlying Index (or the successor Underlying Index, as defined in “—Anti-Dilution and Discontinuance Adjustments Relating to Underlying Funds—Discontinuance of or Material Change to an Underlying Fund”) trade, as determined by the calculation agent (without taking into account any extended or after-hours trading session), in 20% or more of the stocks which then comprise the Underlying Index or any successor underlying index; or
- (E) the suspension of or material limitation on trading, in each case, for more than two consecutive hours of trading, or during the one-half hour period preceding the close of trading, on the primary exchange that trades options contracts or futures contracts related to the relevant Underlying Index (or the successor underlying index) as determined by the calculation agent (without taking into account any extended or after-hours trading session), in options contracts or futures contracts related to the Underlying Index or any successor underlying index,

and, in the case of any of these events, the calculation agent determines in its sole discretion that the event could materially interfere with the ability of GS Finance Corp. or any of its affiliates or a similarly situated party to unwind all or a material portion of a hedge that could be effected with respect to the notes. For more information about hedging by GS Finance Corp. and/or any of its affiliates, see “Use of Proceeds” and “Hedging” below and/or in the applicable term sheet.

The applicable term sheet will identify, if applicable, any additions or changes to the Market Disruption Events for an Underlying Fund.

For the purpose of determining whether a Market Disruption Event as to any Underlying Fund has occurred:

- (1) a limitation on the hours in a Market Measure Business Day and/or number of days of trading will not constitute a Market Disruption Event if it results from an announced change in the regular business hours of the relevant exchange;
- (2) a decision to permanently discontinue trading in the shares or units of the Underlying Fund (or the successor underlying fund) or the relevant futures or options contracts relating to such shares or units or the relevant Underlying Index (or any successor underlying index) will not constitute a Market Disruption Event;
- (3) a suspension in trading in a futures or options contract on the shares or units of the Underlying Fund (or the successor underlying fund) or the relevant Underlying Index (or any successor underlying index), by a major securities market by reason of (a) a price change violating limits set by that securities market, (b) an imbalance of orders relating to those contracts, or (c) a disparity in bid and ask quotes relating to those contracts, will each constitute a suspension of or material limitation on trading in futures or options contracts relating to the Underlying Fund;
- (4) subject to paragraph (3) above, a suspension of or material limitation on trading on the relevant exchange will not include any time when that exchange is closed for trading under ordinary circumstances; or
- (5) if applicable to an Underlying Fund or an Underlying Index with component stocks listed on the NYSE, for the purpose of clauses (A) and (D) above, any limitations on trading during significant market fluctuations under NYSE Rule 80B, or any applicable rule or regulation enacted or promulgated by the NYSE or any other self-regulatory organization or the SEC of similar scope as determined by the calculation agent, will be considered “material.”

As to any Underlying Stock (which, for purposes of this section includes any “successor Underlying Stock,” which refers to the equity securities or the ADRs of any Successor Entity (as defined below in “—Anti-Dilution Adjustments—Reorganization Events”)), a “**Market Disruption Event**” means one or more of the following events, as determined by the calculation agent in its sole discretion:

- (A) the suspension of or material limitation on trading, in each case, for more than two consecutive hours of trading, or during the one-half hour period preceding the close of trading, of the shares of the Underlying Stock on the primary exchange where such shares trade, as determined by the calculation agent (without taking into account any extended or after-hours trading session);
- (B) the suspension of or material limitation on trading, in each case, for more than two consecutive hours of trading, or during the one-half hour period preceding the close of trading, in options contracts or futures contracts related to the shares of the Underlying Stock on the primary exchange that trades options contracts or futures contracts related to the shares of the Underlying Stock, as determined by the calculation agent (without taking into account any extended or after-hours trading session); or
- (C) the Underlying Stock does not trade on what was the primary market for the Underlying Stock, as determined by the calculation agent in its sole discretion,

and, in the case of any of these events, the calculation agent determines in its sole discretion that the event could materially interfere with the ability of GS Finance Corp. or any of its affiliates or a similarly situated party to unwind all or a material portion of a hedge that could be effected with respect to the notes. For more information about hedging by GS Finance Corp. and/or any of its affiliates, see “Use of Proceeds” and

“Hedging” below and/or in the applicable term sheet.

For the purpose of determining whether a Market Disruption Event as to any Underlying Stock has occurred:

- (1) a limitation on the hours in a Market Measure Business Day and/or number of days of trading will not constitute a Market Disruption Event if it results from an announced change in the regular business hours of the relevant exchange;
- (2) a decision to permanently discontinue trading in the shares of the Underlying Stock or the relevant futures or options contracts relating to such shares will not constitute a Market Disruption Event;
- (3) a suspension in trading in a futures or options contract on the shares of the Underlying Stock, by a major securities market by reason of (a) a price change violating limits set by that securities market, (b) an imbalance of orders relating to those contracts, or (c) a disparity in bid and ask quotes relating to those contracts, will each constitute a suspension of or material limitation on trading in futures or options contracts relating to the Underlying Stock;
- (4) Subject to paragraph (3) above, a suspension of or material limitation on trading on the relevant exchange will not include any time when that exchange is closed for trading under ordinary circumstances; or
- (5) for the purpose of clause (A) above, any limitations on trading during significant market fluctuations under NYSE Rule 80B, or any applicable rule or regulation enacted or promulgated by the NYSE or any other self-regulatory organization or the SEC of similar scope as determined by the calculation agent, will be considered “material.”

Adjustments to an Index

After the applicable pricing date, the publisher of an Index to which your notes are linked (an “**Index Publisher**”) may make a material change in the method of calculating an Index or in another way that changes the Index such that it does not, in the opinion of the calculation agent, fairly represent the level of the Index had those changes or modifications not been made. In this case, the calculation agent will, at the close of business in New York, New York, on each date that the closing level is to be calculated, make adjustments to the Index. Those adjustments will be made in good faith as necessary to arrive at a calculation of a level of the Index as if those changes or modifications had not been made, and calculate the closing level of the Index, as so adjusted.

Discontinuance of an Index

After the applicable pricing date, an Index Publisher may discontinue publication of an Index to which an issue of the notes is linked. The Index Publisher or another entity may then publish a substitute index that the calculation agent determines, in its sole discretion, to be comparable to the original Index (a “**successor index**”). If this occurs, the calculation agent will substitute the successor index as calculated by the relevant Index Publisher or other entity and calculate the level of the Index at any time required under the terms of the notes.

If an Index Publisher discontinues publication of the applicable Index before the end of the Maturity Valuation Period and the calculation agent does not select a successor index, then on each relevant day that the level of the Index must be determined, until the earlier to occur of:

- the determination of final payment on the notes; and
- a determination by the calculation agent that a successor index is available,

the calculation agent will compute a substitute level for the Index in accordance with the procedures last used to calculate the Index before any discontinuance.

If a successor index is selected or the calculation agent calculates a level as a substitute as to any Index, the successor index or level will be used as a substitute for all purposes, including for the purpose of determining whether a Market Disruption Event exists.

Notwithstanding these alternative arrangements, any modification or discontinuance of the publication of any Index to which your notes are linked may adversely affect trading in the notes.

Anti-Dilution and Discontinuance Adjustments Relating to Underlying Funds

As to any Underlying Fund, the calculation agent, in its sole discretion, may adjust the Price Multiplier and any other terms of the notes if an event described below occurs after the applicable pricing date and on or before the final calculation day during the Maturity Valuation Period and if the calculation agent determines that such an event has a dilutive or concentrative effect on the theoretical value of the shares of the applicable Underlying Fund or successor underlying fund.

The Price Multiplier for an Underlying Fund resulting from any of the adjustments specified below will be rounded to the eighth decimal place with five one-billionths being rounded upward. No adjustments to the Price Multiplier will be required unless the adjustment would require a change of at least 0.1% in the Price Multiplier then in effect. Any adjustment that would require a change of less than 0.1% in the Price Multiplier which is not applied at the time of the event may be reflected at the time of any subsequent adjustment that would require an adjustment of the Price Multiplier. The required adjustments specified below do not cover all events that could affect an Underlying Fund.

No adjustments to the Price Multiplier for any Underlying Fund or any other terms of the notes will be required other than those specified below. However, the calculation agent may, at its sole discretion, make additional adjustments or adjustments that differ from those described herein to the Price Multiplier or any other terms of the notes to reflect changes to an Underlying Fund if the calculation agent determines in good faith and a commercially reasonable manner that the adjustment is appropriate to ensure an equitable result.

The calculation agent will be solely responsible for the determination of any adjustments to the Price Multiplier for any Underlying Fund or any other terms of the notes and of any related determinations with respect to any distributions of stock, other securities or other property or assets, including cash, in connection with any event described below; its determinations and calculations will be conclusive absent a determination of a manifest error.

No adjustments are required to be made for certain other events, such as offerings of equity securities by the Underlying Fund for cash or in connection with the occurrence of a partial tender or exchange offer for shares of the Underlying Fund by the Underlying Fund.

Following an event that results in an adjustment to the Price Multiplier for any Underlying Fund or any of the other terms of the notes, the calculation agent may (but is not required to) provide holders of the notes with information about that adjustment as it deems appropriate, depending on the nature of the adjustment. Upon written request by any holder of the notes, the calculation agent will provide that holder with information about such adjustment.

Anti-Dilution Adjustments

The calculation agent, in its sole discretion and as it deems reasonable, may adjust the Price Multiplier for any Underlying Fund and the other terms of the notes as a result of certain events related to an Underlying Fund, which include, but are not limited to, the following:

Share Splits and Reverse Share Splits. If an Underlying Fund is subject to a share split or reverse share split, then once such split has become effective, the Price Multiplier for that Underlying Fund will be adjusted such that the new Price Multiplier will equal the product of:

- the prior Price Multiplier; and
- the number of shares or units that a holder of one share or unit of the Underlying Fund before the effective date of the share split or reverse share split would have owned immediately following the applicable effective date.

For example, a two-for-one share split would ordinarily change a Price Multiplier of one into a Price Multiplier of two. In contrast, a one-for-two reverse share split would ordinarily change a Price Multiplier of one into a Price Multiplier of one-half.

Share Dividends. If an Underlying Fund is subject to (i) a share dividend (i.e., an issuance of additional shares or units of Underlying Fund) that is given ratably to all holders of the Underlying Fund, then, once the dividend has become effective and the Underlying Fund is trading ex-dividend, the Price Multiplier for that Underlying Fund will be adjusted on the ex-dividend date such that the new Price Multiplier will equal the prior Price Multiplier *plus* the product of:

- the prior Price Multiplier; and
- the number of additional shares or units issued in the share dividend with respect to one share or unit of the Underlying Fund;

provided that no adjustment will be made for a share dividend for which the number of shares or units of the Underlying Fund paid or distributed is based on a fixed cash equivalent value, unless such distribution is an Extraordinary Dividend (as defined below).

For example, a share or unit dividend of one new share or unit for each share or unit held would ordinarily change a Price Multiplier of one into a Price Multiplier of two.

Extraordinary Dividends. There will be no adjustments to the Price Multiplier of an Underlying Fund to reflect any cash dividends or cash distributions paid with respect to that Underlying Fund other than Extraordinary Dividends, as defined below, and distributions described in “—Other Distributions” below and in “—Anti-Dilution and Discontinuance Adjustments Relating to Underlying Funds—Reorganization Events” below.

An “**Extraordinary Dividend**” means, with respect to a cash dividend or other distribution with respect to an Underlying Fund, a dividend or other distribution that the calculation agent determines, in its sole discretion, is extraordinary or special. If an Extraordinary Dividend occurs, the Price Multiplier for that Underlying Fund will be adjusted on the ex-dividend date so that the new Price Multiplier will equal the product of:

- the prior Price Multiplier; and
- a fraction, the numerator of which is the Closing Market Price per share or unit of the Underlying Fund on the Market Measure Business Day preceding the ex-dividend date and the denominator of which is the amount by which the Closing Market Price per share or unit of the Underlying Fund on that preceding Market Measure Business Day exceeds the Extraordinary Dividend Amount.

The “**Extraordinary Dividend Amount**” with respect to an Extraordinary Dividend will equal:

- in the case of cash dividends or other distributions that are paid as regular dividends, the amount per share or unit of the applicable Underlying Fund of that Extraordinary Dividend minus the amount per share or unit of the immediately preceding non-Extraordinary Dividend for that share or unit; or
- in the case of cash dividends or other distributions that are not paid as regular dividends, the amount per share or unit of the applicable Underlying Fund of that Extraordinary Dividend.

To the extent an Extraordinary Dividend is not paid in cash, the value of the non-cash component will be determined by the calculation agent, whose determination will be conclusive. A distribution on the applicable Underlying Fund described in “—Other Distributions” below and in “—Anti-Dilution and Discontinuance Adjustments Relating to Underlying Funds—Reorganization Events” below that also constitutes an Extraordinary Dividend will only cause an adjustment under those respective sections.

Other Distributions. If an Underlying Fund, after the applicable pricing date, declares or makes a distribution to all holders of the shares or units of the applicable Underlying Fund of any class of its securities (other than shares or units of the applicable Underlying Fund), evidences of its indebtedness or other non-cash assets, including, but not limited to, transferable rights and warrants, then, in each of these cases, once the distribution has become effective and the shares or units are trading ex-dividend, the Price Multiplier for such Underlying Fund will be adjusted such that the new Price Multiplier will equal the product of:

- the prior Price Multiplier; and
- a fraction, the numerator of which will be the Current Market Price per share or unit of the applicable Underlying Fund, and the denominator of which will be the Current Market Price per share or unit of the applicable Underlying Fund, less the fair market value, as determined by the calculation agent, as of the time the adjustment is effected of the portion of the capital stock, evidences of indebtedness, rights or warrants, or other non-cash assets so distributed or issued applicable to one share or unit of the applicable Underlying Fund.

The “**Current Market Price**” of any Underlying Fund means the arithmetic average of the Closing Market Prices of one share of such Underlying Fund for the five Market Measure Business Days prior to the Market Measure Business Day immediately preceding the ex-dividend date of the distribution requiring an adjustment to the Price Multiplier.

“**Ex-dividend date**” means the first Market Measure Business Day on which transactions in the shares or units of the Underlying Fund trade on the relevant exchange without the right to receive that cash dividend or other cash distribution.

The “**fair market value**” of any such distribution means the value of such distribution on the ex-dividend date for such distribution, as determined by the calculation agent. If such distribution consists of property traded on the ex-dividend date on a U.S. national securities exchange, the fair market value will equal the Closing Market Price of such distributed property on such ex-dividend date.

Reorganization Events

If after the pricing date and on or before the final calculation day during the Maturity Valuation Period as to any Underlying Fund, the Underlying Fund (or successor underlying fund, as defined below) has been subject to a merger, combination, consolidation, or statutory exchange of securities with another exchange traded fund, and the Underlying Fund (or successor underlying fund) is not the surviving entity, then, on or after the date of such event, the calculation agent shall, in its sole discretion, make an adjustment to the Price Multiplier for such Underlying Fund (or successor underlying fund) or any other terms of the notes as

the calculation agent, in its sole discretion, determines appropriate to account for the economic effect on the notes of that event, and determine the effective date of that adjustment. If the calculation agent determines that no adjustment that it could make will produce a commercially reasonable result, then the calculation agent may deem the Underlying Fund (or successor underlying fund) to be de-listed, liquidated, discontinued, or otherwise terminated, the treatment of which is described in “—Anti-Dilution and Discontinuance Events Relating to Underlying Funds—Discontinuance of or Material Change to an Underlying Fund.” For the avoidance of doubt, any adjustment will be made after the effective date of the reorganization and not on the date of the announcement or a plan or intention to effect such an event.

Discontinuance of or Material Change to an Underlying Fund

If shares or units of an Underlying Fund are de-listed from its primary securities exchange (or any other relevant exchange), liquidated, or otherwise terminated, the calculation agent will substitute an exchange traded fund that the calculation agent determines, in its sole discretion, is comparable to the discontinued Underlying Fund (that exchange traded fund being referred to herein as a “**successor underlying fund**”). In that event, the calculation agent will adjust the applicable Price Multiplier, as necessary, such that the successor underlying fund closely replicates the performance of the Underlying Fund.

If an Underlying Fund (or a successor underlying fund) is de-listed, liquidated, or otherwise terminated and the calculation agent determines that no adequate substitute for the Underlying Fund (or a successor underlying fund) is available, then the calculation agent will, in its sole discretion, calculate the Closing Market Price of that Underlying Fund (or a successor underlying fund) by a computation methodology that the calculation agent determines will as closely as reasonably possible replicate that Underlying Fund (or a successor underlying fund) or, if the Underlying Fund is considered to be actively managed, reflect the investment objective of that Underlying Fund (or a successor underlying fund). If the calculation agent determines that no such computation methodology will produce a commercially reasonable result, then the calculation agent will determine the Closing Market Price of the Underlying Fund (or the successor underlying fund) in good faith and in its sole discretion.

If a successor underlying fund is selected or the calculation agent calculates the Closing Market Price by a computation methodology that the calculation agent determines will as closely as reasonably possible replicate the Underlying Fund (or a successor underlying fund), that successor underlying fund or substitute computation methodology, as applicable, will be substituted for the Underlying Fund (or that successor underlying fund) for all purposes of the notes.

If at any time:

- the Underlying Index of an Underlying Fund (or the underlying index related to a successor underlying fund) is discontinued or ceases to be published and (i) the Market Measure Publisher of the Underlying Index or another entity does not publish a successor or substitute underlying index that the calculation agent determines, in its sole discretion, to be comparable to the Underlying Index (a “**successor underlying index**”) or (ii) the Market Measure Publisher of the Underlying Fund does not announce that the Underlying Fund will track the successor underlying index; or
- an Underlying Fund (or a successor underlying fund) in any way is modified (including, but not limited to, a material change in the investment policies, objectives or methodology of the Underlying Fund, or a material change to the related Underlying Index) so that the Underlying Fund does not, in the opinion of the calculation agent, fairly represent the price per share or unit of that Underlying Fund (or that successor underlying fund) had those changes or modifications not been made;

then, from and after that time, the calculation agent will make those calculations and adjustments that, in the good faith judgment of the calculation agent, may be necessary in order to arrive at a Closing Market Price

of that Underlying Fund (or that successor underlying fund) as if those changes or modifications had not been made. The calculation agent also may determine that no adjustment is required. If the calculation agent determines that no such calculation or adjustment will produce a commercially reasonable result, then the calculation agent will determine the Closing Market Price of the Underlying Fund (or the successor underlying fund) in good faith and in its sole discretion.

The calculation agent will be solely responsible for the method of calculating the Closing Market Price of the Underlying Fund (or any successor underlying fund) and of any related determinations and calculations, and its determinations and calculations with respect thereto will be conclusive in the absence of manifest error.

Notwithstanding these alternative arrangements, any modification or discontinuance of the Underlying Fund or the related Underlying Index may adversely affect trading in the notes.

Anti-Dilution Adjustments Relating to Underlying Stocks

As to any Underlying Stock (which, for purposes of this section includes any successor Underlying Stock), the calculation agent, in its sole discretion, may adjust the Price Multiplier and any other terms of the notes if an event described below occurs after the applicable pricing date and on or before the final calculation day during the Maturity Valuation Period and if the calculation agent determines that such an event has a dilutive or concentrative effect on the theoretical value of the shares of the applicable Underlying Stock or successor Underlying Stock.

The Price Multiplier for an Underlying Stock resulting from any of the adjustments specified below will be rounded to the eighth decimal place with five one-billionths being rounded upward. No adjustments to the Price Multiplier will be required unless the adjustment would require a change of at least 0.1% in the Price Multiplier then in effect. Any adjustment that would require a change of less than 0.1% in the Price Multiplier which is not applied at the time of the event may be reflected at the time of any subsequent adjustment that would require an adjustment of the Price Multiplier. The required adjustments specified below do not cover all events that could affect an Underlying Stock.

No adjustments to the Price Multiplier for any Underlying Stock or any other terms of the notes will be required other than those specified below. However, the calculation agent may, at its sole discretion, make additional adjustments or adjustments that differ from those described herein to the Price Multiplier or any other terms of the notes to reflect changes to an Underlying Stock if the calculation agent determines in good faith and a commercially reasonable manner that the adjustment is appropriate to ensure an equitable result.

The calculation agent will be solely responsible for the determination of any adjustments to the Price Multiplier for any Underlying Stock or any other terms of the notes and of any related determinations with respect to any distributions of stock, other securities or other property or assets, including cash, in connection with any corporate event described below; its determinations and calculations will be conclusive absent a determination of a manifest error.

No adjustments are required to be made for certain other events, such as offerings of equity securities by any Underlying Company for cash or in connection with the occurrence of a partial tender or exchange offer for any Underlying Stock by the Underlying Company.

Following certain corporate events relating to an Underlying Stock, where the Underlying Company is not the surviving entity, any payment you receive on the notes may be based on the equity securities of a successor to the Underlying Company or on any cash or other assets distributed to holders of the Underlying Stock in such corporate event.

Following an event that results in an adjustment to the Price Multiplier for any Underlying Stock or any of the other terms of the notes, the calculation agent may (but is not required to) provide holders of the notes with information about that adjustment as it deems appropriate, depending on the nature of the

adjustment. Upon written request by any holder of the notes, the calculation agent will provide that holder with information about such adjustment.

Anti-Dilution Adjustments to Underlying Stocks that Are Equity

The calculation agent, in its sole discretion and as it deems reasonable, may adjust the Price Multiplier for any Underlying Stock and the other terms of the notes as a result of certain events related to an Underlying Stock, which include, but are not limited to, the following:

Stock Splits and Reverse Stock Splits. If an Underlying Stock is subject to a stock split or reverse stock split, then once such split has become effective, the Price Multiplier for that Underlying Stock will be adjusted such that the new Price Multiplier will equal the product of:

- the prior Price Multiplier; and
- the number of shares that a holder of one share of the Underlying Stock before the effective date of the stock split or reverse stock split would have owned immediately following the applicable effective date.

For example, a two-for-one stock split would ordinarily change a Price Multiplier of one into a Price Multiplier of two. In contrast, a one-for-two reverse stock split would ordinarily change a Price Multiplier of one into a Price Multiplier of one-half.

Stock Dividends. If an Underlying Stock is subject to (i) a stock dividend (i.e., an issuance of additional shares of Underlying Stock) that is given ratably to all holders of the Underlying Stock or (ii) a distribution of additional shares of the Underlying Stock as a result of the triggering of any provision of the organizational documents of the Underlying Company, then, once the dividend or distribution has become effective and the Underlying Stock is trading ex-dividend, the applicable Price Multiplier will be adjusted on the first Market Measure Business Day on which transactions in shares of the Underlying Stock trade on the relevant exchange without the right to receive an applicable dividend or other distribution (the “**ex-dividend date**”) such that the new Price Multiplier will equal the prior Price Multiplier plus the product of:

- the prior Price Multiplier; and
- the number of additional shares issued in the stock dividend with respect to one share of the Underlying Stock;

provided that no adjustment will be made for a stock dividend for which the number of shares of the Underlying Stock paid or distributed is based on a fixed cash equivalent value, unless such distribution is an Extraordinary Dividend (as defined below).

For example, a stock dividend of one new share for each share held would ordinarily change a Price Multiplier of one into a Price Multiplier of two.

Extraordinary Dividends. There will be no adjustments to the Price Multiplier of an Underlying Stock to reflect any cash dividends or cash distributions paid with respect to that Underlying Stock other than Extraordinary Dividends, as defined below, and distributions described in “—Reorganization Events” below.

An “**Extraordinary Dividend**” means, with respect to a cash dividend or other distribution with respect to an Underlying Stock, a dividend or other distribution that the calculation agent determines, in its sole discretion, is extraordinary or special. In making such determination, the calculation agent may, but is not required to, take in to account (i) characterization of such cash dividend or other distribution by the issuer of the relevant Underlying Stock as special or extraordinary or (ii) announcement of adjustment(s) in respect of such cash dividend or other distribution by an option exchange to options on the relevant Underlying Stock traded on that options exchange. If an Extraordinary Dividend occurs, the applicable Price Multiplier will be adjusted on the ex-dividend date so that the new Price Multiplier will equal the product of:

- the prior Price Multiplier; and
- a fraction, the numerator of which is the Closing Market Price per share of the Underlying Stock on the Market Measure Business Day preceding the ex-dividend date and the denominator of which is the amount by which the Closing Market Price per share of the Underlying Stock on that preceding Market Measure Business Day exceeds the Extraordinary Dividend Amount.

The “**Extraordinary Dividend Amount**” with respect to an Extraordinary Dividend will equal:

- in the case of cash dividends or other distributions that are paid as regular dividends, the amount per share of the applicable Underlying Stock of that Extraordinary Dividend minus the amount per share of the immediately preceding non-Extraordinary Dividend for that share; or
- in the case of cash dividends or other distributions that are not paid as regular dividends, the amount per share of the applicable Underlying Stock of that Extraordinary Dividend.

To the extent an Extraordinary Dividend is not paid in cash, the value of the non-cash component will be determined by the calculation agent, whose determination will be conclusive. A distribution on the Underlying Stock described in “—Issuance of Transferable Rights or Warrants” below or clause (a), (d) or (e) of the section entitled “—Reorganization Events” below that also constitutes an Extraordinary Dividend will only cause an adjustment under those respective sections.

Issuance of Transferable Rights or Warrants. If an Underlying Company issues to all holders of record of the Underlying Stock transferable rights or warrants to subscribe for or purchase the Underlying Stock, including new or existing rights to purchase the Underlying Stock under a shareholder rights plan or arrangement, then the applicable Price Multiplier will be adjusted on the Market Measure Business Day immediately following the issuance of those transferable rights or warrants so that the new Price Multiplier will equal the prior Price Multiplier plus the product of:

- the prior Price Multiplier; and
- the number of shares of the Underlying Stock that can be purchased with the cash value of those warrants or rights distributed on one share of the Underlying Stock.

The number of shares that can be purchased will be based on the Closing Market Price of the Underlying Stock on the date the new Price Multiplier is determined. The cash value of those warrants or rights, if the warrants or rights are traded on a registered national securities exchange, will equal the closing price of that warrant or right. If the warrants or rights are not traded on a registered national securities exchange, the cash value will be determined by the calculation agent and will equal the average of the bid prices obtained from three dealers at 3:00 p.m., New York time on the date the new Price Multiplier is determined, provided that if only two of those bid prices are available, then the cash value of those warrants or rights will equal the average of those bids and if only one of those bids is available, then the cash value of those warrants or rights will equal that bid.

Reorganization Events

If after the pricing date and on or prior to the final calculation day during the Maturity Valuation Period, as to any Underlying Stock:

- there occurs any reclassification or change of the Underlying Stock, including, without limitation, as a result of the issuance of tracking stock by the Underlying Company;
- the Underlying Company, or any surviving entity or subsequent surviving entity of the Underlying Company (a “**Successor Entity**”), has been subject to a merger, combination, or consolidation and is not the surviving entity;

- (c) any statutory exchange of securities of the Underlying Company or any Successor Entity with another corporation occurs, other than under clause (b) above;
- (d) the Underlying Company is liquidated or is subject to a proceeding under any applicable bankruptcy, insolvency, or other similar law;
- (e) the Underlying Company issues to all of its shareholders securities of an issuer other than the Underlying Company, including equity securities of an affiliate of the Underlying Company, other than in a transaction described in clauses (b), (c), or (d) above;
- (f) a tender or exchange offer or going-private transaction is consummated for all the outstanding shares of the Underlying Company;
- (g) there occurs any reclassification or change of the Underlying Stock that results in a transfer or an irrevocable commitment to transfer all such outstanding shares of the Underlying Stock to another entity or person;
- (h) the Underlying Company or any Successor Entity is the surviving entity of a merger, combination, or consolidation, that results in the outstanding Underlying Stock (other than Underlying Stock owned or controlled by the other party to such transaction) immediately prior to such event collectively representing less than 50% of the outstanding Underlying Stock immediately following such event; or
- (i) the Underlying Company ceases to file the financial and other information with the SEC in accordance with Section 13(a) of the Exchange Act

(an event in clauses (a) through (i), a “**Reorganization Event**”), then, on or after the date of the occurrence of a Reorganization Event, the calculation agent shall, in its sole discretion, make an adjustment to the Price Multiplier or any other terms of the notes as the calculation agent, in its sole discretion, determines appropriate to account for the economic effect on the notes of that Reorganization Event, which may, but need not, be determined by reference to the adjustment(s) made in respect of such Reorganization Event by an options exchange to options on the relevant Underlying Stock traded on that options exchange, and determine the effective date of that adjustment. For the avoidance of doubt, any adjustment will be made on or after the effective date of the Reorganization Event and not on the date of the announcement of a plan or intention to effect such an event.

Anti-Dilution Adjustments to Underlying Stocks that Are ADRs

For purposes of the anti-dilution adjustments set forth above, if an Underlying Stock is an ADR (an “**Underlying ADR**”), the calculation agent will consider the effect of any of the relevant events on the Underlying ADR, and adjustments will be made, as if the Underlying ADR was the Underlying Stock described above. For example, if the stock represented by the Underlying ADR is subject to a two-for-one stock split, and assuming an initial Price Multiplier of 1, the Price Multiplier for the Underlying ADR would be adjusted so that it equals two. Unless otherwise specified in the applicable term sheet, with respect to the notes linked to an Underlying ADR (or an Underlying Stock issued by a non-U.S. Underlying Company), the term “dividend” means the dividends paid to holders of the Underlying ADR (or the Underlying Stock issued by the non-U.S. Underlying Company), and such dividends may reflect the netting of any applicable foreign withholding or similar taxes that may be due on dividends paid to a U.S. person.

The calculation agent may determine not to make an adjustment if:

- (A) holders of the Underlying ADR are not eligible to participate in any of the events that would otherwise require anti-dilution adjustments as set forth above if the notes had been linked directly to the equity securities of the Underlying Company represented by the Underlying ADR; or

- (B) to the extent that the calculation agent determines that the Underlying Company or the depositary for the ADRs has adjusted the number of equity securities of the Underlying Company represented by each share of the Underlying ADR, so that the market price of the Underlying ADR would not be affected by the corporate event.

If the Underlying Company or the depositary for the ADRs, in the absence of any of the events described above, elects to adjust the number of equity securities of the Underlying Company represented by each share of the Underlying ADR, then the calculation agent may make the appropriate anti-dilution adjustments to reflect such change. The depositary for the ADRs may also make adjustments in respect of the ADRs for share distributions, rights distributions, cash distributions and distributions other than shares, rights, and cash. Upon any such adjustment by the depositary, the calculation agent may adjust the Price Multiplier or other terms of the notes as the calculation agent determines commercially reasonable to account for that event.

Alternative Anti-Dilution and Reorganization Adjustments

The calculation agent may elect at its discretion to not make any of the adjustments to the Price Multiplier for any Underlying Stock or to the other terms of the notes, including the method of determining the Redemption Amount, described in this section, but may instead make adjustments, in its discretion, to the Price Multiplier for any Underlying Stock or any other terms of the notes that will reflect the adjustments to the extent practicable made by the Options Clearing Corporation on options contracts on an Underlying Stock or any successor underlying stock. For example, if an Underlying Stock is subject to a two-for-one stock split, and the Options Clearing Corporation adjusts the strike prices of the options contract on that Underlying Stock by dividing the strike price by two, then the calculation agent may also elect to divide the Starting Value by two. In this case, the Price Multiplier will remain one. This adjustment would have the same economic effect on holders of the notes as if the Price Multiplier had been adjusted.

Delisting of ADRs or Termination of ADR Facility

If an Underlying ADR is no longer listed or admitted to trading on a U.S. securities exchange registered under the Exchange Act or included in the OTC Bulletin Board Service operated by FINRA, or if the ADR facility between the Underlying Company and the ADR depositary is terminated for any reason, then, on and after the date that the Underlying ADR is no longer so listed or admitted to trading or the date of such termination, as applicable (the “**termination date**”), the Underlying Stock will be deemed to be the Underlying Company’s equity securities rather than the Underlying ADR. The calculation agent will determine the price of the Underlying Stock by reference to those equity securities. Under such circumstances, the calculation agent may modify any terms of the notes as it deems necessary, in its sole discretion, to ensure an equitable result. On and after the termination date, for all purposes, the Closing Market Price of the Underlying Company’s equity securities on their primary exchange will be converted to U.S. dollars using such exchange rate as the calculation agent, in its sole discretion, determines to be commercially reasonable.

Baskets

If the Market Measure to which your notes are linked includes a Basket, the Basket Components and if necessary, the definition of Market Measure Business Day will be set forth in the applicable term sheet. We will assign each Basket Component a weighting (the “**Initial Component Weight**”) so that each Basket Component represents a percentage of the value of the Basket on the pricing date. The Basket Components may or may not have equal Initial Component Weights, as set forth in the applicable term sheet.

Determination of the Component Ratio for Each Basket Component

The value of the Basket on the pricing date will be equal to 100. We will set a fixed factor (the “**Component Ratio**”) for each Basket Component on the applicable pricing date, based on the weighting of that Basket Component. The Component Ratio for each Basket Component will equal:

- the Initial Component Weight (expressed as a percentage) for that Basket Component, multiplied by 100; *divided by*
- the closing level or the Closing Market Price, as applicable, of that Basket Component on the applicable pricing date.

Each Component Ratio will be rounded to eight decimal places.

The Component Ratios will be calculated in this way so that the value of the Basket will equal 100 on the applicable pricing date. The Component Ratios will not be revised subsequent to their determination on the applicable pricing date, except that the calculation agent may in its good faith judgment adjust the Component Ratio of any Basket Component in the event that Basket Component is materially changed or modified in a manner that does not, in the opinion of the calculation agent, fairly represent the value of that Basket Component had those material changes or modifications not been made.

The following table is for illustration purposes only, and does not reflect the actual composition, Initial Component Weights, or Component Ratios of a Basket, all of which will be set forth in the applicable term sheet.

Example: The **hypothetical** Basket Components are Underlying Fund ABC, Index XYZ, and Index RST, with their Initial Component Weights being 50.00%, 25.00% and 25.00%, respectively, on a **hypothetical** pricing date:

Basket Component	Initial Component Weight	Hypothetical Closing Level or Closing Market Price⁽¹⁾	Hypothetical Component Ratio⁽²⁾	Initial Basket Value Contribution
Underlying Fund ABC	50.00%	500.00	0.10000000	50.00
Index XYZ	25.00%	2,420.00	0.01033058	25.00
Index RST	25.00%	1,014.00	0.02465483	<u>25.00</u>
Value of the Basket on the pricing date				100.00

- (1) This column sets forth the **hypothetical** closing level or Closing Market Price, as applicable, of each Basket Component on the **hypothetical** pricing date.
- (2) The **hypothetical** Component Ratio for each Basket Component equals its Initial Component Weight (expressed as a percentage) multiplied by 100, and then divided by the **hypothetical** closing level or Closing Market Price, as applicable, of that Basket Component on the **hypothetical** pricing date, with the result rounded to eight decimal places.

Unless otherwise stated in the applicable term sheet, if a Market Disruption Event occurs on the applicable pricing date as to any Basket Component or the pricing date is determined by the calculation agent not to be a Market Measure Business Day for any Basket Component by reason of an extraordinary event, occurrence, declaration or otherwise, the calculation agent will establish the closing level or the Closing Market Price, as applicable, of that Basket Component (the “**Basket Component Closing Level**”), and thus its Component Ratio, based on the closing level or the Closing Market Price, as applicable, of that Basket Component on the first Market Measure Business Day following the pricing date on which no Market Disruption Event occurs for that Basket Component. In the event that a Market Disruption Event or non-Market Measure Business Day occurs for that Basket Component on the pricing date and on each scheduled Market Measure Business Day thereafter to and including the second scheduled Market Measure Business

Day following the pricing date, the calculation agent (not later than the close of business in New York, New York on the second scheduled Market Measure Business Day following the pricing date) will estimate the Basket Component Closing Level, and thus the applicable Component Ratio, in a manner that the calculation agent considers commercially reasonable. The final term sheet will provide the Basket Component Closing Level, a brief statement of the facts relating to the establishment of the Basket Component Closing Level (including the applicable Market Disruption Event(s)), and the applicable Component Ratio.

For purposes of determining whether a Market Disruption Event has occurred as to any Basket Component, “Market Disruption Event” will have the meaning set forth in “—Market Disruption Events.”

Value of the Basket

The calculation agent will calculate the value of the Basket for an applicable day by summing the products of the closing level or the Closing Market Price, as applicable, of each Basket Component on such day (multiplied by its Price Multiplier on such day, if applicable) multiplied by the Component Ratio for that Basket Component. The value of the Basket will vary based on the increase or decrease in the value of each Basket Component. Any increase in the value of a Basket Component (assuming no change in the value of the other Basket Component or Basket Components) will result in an increase in the value of the Basket. Conversely, any decrease in the value of a Basket Component (assuming no change in the value of the other Basket Component or Basket Components) will result in a decrease in the value of the Basket.

Unless otherwise specified in the applicable term sheet, if, for any Basket Component (an “**Affected Basket Component**”), (i) a Market Disruption Event occurs on a scheduled Observation Date or calculation day during the Maturity Valuation Period or (ii) any such date is determined by the calculation agent not to be a Market Measure Business Day by reason of an extraordinary event, occurrence, declaration, or otherwise (any such day in either (i) or (ii) being a “**non-calculation day**”), the calculation agent will determine the closing levels or the Closing Market Prices, as applicable, of the Basket Components for such non-calculation day, as follows:

- The closing level or the Closing Market Price, as applicable, of each Basket Component that is not an Affected Basket Component will be its closing level or the Closing Market Price, as applicable, on such non-calculation day.
- The closing level or the Closing Market Price, as applicable, of each Basket Component that is an Affected Basket Component for the applicable non-calculation day will be determined in the same manner as described in “—Certain Terms of the Notes—Events Relating to Observation Dates” and “—Certain Terms of the Notes—Events Relating to Calculation Days” as applicable, provided that references to “closing level” or “Closing Market Price” will be deemed to be references to the closing level or Closing Market Price of the applicable Basket Component.

For purposes of determining whether a Market Disruption Event has occurred as to any Basket Component, “Market Disruption Event” will have the meaning stated above in “—Market Disruption Events.”

Role of the Calculation Agent

The calculation agent has the sole discretion to make all determinations regarding the notes as described in this product supplement, including determinations regarding payments on the notes, the Price Multiplier, the Market Measure, any Market Disruption Events, a successor index, successor underlying fund or successor underlying stock, Market Measure Business Days, business days, calculation days, non-calculation days, any anti-dilution adjustments, and determinations related to any adjustments to, or discontinuance of, any Index or Underlying Fund. Absent manifest error, all determinations of the calculation agent will be conclusive for all purposes and final and binding on you and us, without any liability on the part of the calculation agent.

Unless otherwise specified in the applicable term sheet, GS&Co. is serving as the calculation agent for each issue of the notes. However, we may change the calculation agent at any time without notifying you.

Same-Day Settlement and Payment

The notes will be delivered in book-entry form only through The Depository Trust Company against payment by purchasers of the notes in immediately available funds. We will pay the amounts payable on the notes in immediately available funds so long as the notes are maintained in book-entry form.

Limited Events of Default

The only events of default for the notes are (i) payment defaults that continue for a 30 day-grace period and (ii) certain insolvency events. No other breach or default under our senior debt indenture or the notes will result in an event of default for the notes or permit the trustee or holders to accelerate the maturity of the notes - that is, they will not be entitled to declare the face or principal amount of any notes to be immediately due and payable. See “Risks Relating to Regulatory Resolution Strategies and Long-Term Debt Requirements” and “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default — Securities Issued Under the 2008 GSFC Indenture” in the accompanying prospectus for further details.

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. We describe the default amount under “Summary — Default amount” above.

For the purpose of determining whether the holders of our Series F medium-term notes, which include the notes, are entitled to take any action under the indenture, we will treat the outstanding principal amount of each security as the outstanding principal amount of that security. Although the terms of the notes differ from those of the other Series F medium-term notes, holders of specified percentages in principal amount of all Series F medium-term notes, together in some cases with other series of our debt securities, will be able to take action affecting all the Series F medium-term notes, including the notes offered hereby, except with respect to certain Series F medium-term notes if the terms of such notes specify that the holders of specified percentages in principal amount of all of such notes must also consent to such action. This action may involve changing some of the terms that apply to the Series F medium-term notes 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 in principal amount of such affected debt securities. We discuss these matters in the accompanying prospectus under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” and “— Modification of the Debt Indentures and Waiver of Covenants”.

Listing

Unless otherwise specified in the applicable term sheet, the notes will not be listed on a securities exchange or quotation system.

SUPPLEMENTAL PLAN OF DISTRIBUTION

With respect to each note to be issued, GS Finance Corp. expects to agree to sell to GS&Co., and GS&Co. expects to agree to purchase from GS Finance Corp., the principal amount of the notes specified, at the price specified under “Proceeds, before expenses, to GSFC”, in the applicable term sheet. GS&Co. proposes initially to offer each note it purchases to the public at the public offering price specified in the applicable term sheet and, if the applicable term sheet so provides, to certain securities dealers at such price less a concession or no concession as specified in the applicable term sheet.

In the future, GS&Co. or other affiliates of GS Finance Corp. may repurchase and resell the 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. The estimated share of GS Finance Corp. of the total offering expenses for your notes, excluding underwriting discounts and commissions and marketing and licensing fees, will be provided in the applicable term sheet. For more information about the plan of distribution and possible market-making activities, see “Plan of Distribution” in the accompanying prospectus.

The notes may not be offered, sold or otherwise made available to any retail investor in the European Economic Area (“**EEA**”). 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 (EU) 2016/97 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 Regulation (EU) 2017/1129; 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.

The notes may not be offered, sold or otherwise made available to any retail investor in the United Kingdom. Consequently no key information document required by Regulation (EU) No 1286/2014 as it forms part of domestic law by virtue of the EUWA (the “**UK PRIIPs Regulation**”) for offering or selling the notes or otherwise making them available to retail investors in the United Kingdom has been prepared and therefore offering or selling the notes or otherwise making them available to any retail investor in the United Kingdom may be unlawful under the UK 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 (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018 (“**EUWA**”); or
 - (ii) a customer within the meaning of the provisions of the Financial Services and Markets Act 2000, as amended (the “**FSMA**”) and any rules or regulations made under the FSMA to implement Directive (EU) 2016/97, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA;
 - (iii) or not a qualified investor as defined in Article 2 of Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the EUWA; 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.

Notes which have a maturity of less than one year may not be offered or sold other than to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or as agent) for the purposes of their businesses or who it is reasonable to expect will acquire, hold, manage or dispose of investments (as principal or agent) for the purposes of their businesses where the issue of the notes would otherwise constitute a contravention of Section 19 of the FSMA by GS Finance Corp.

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 product supplement, along with the applicable term sheet, the accompanying prospectus supplement and the accompanying prospectus have not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this product supplement, along with the applicable term sheet, 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’s securities pursuant to Section 275(1A) of the SFA, (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore (“**Regulation 32**”).

Where the notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose

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

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

The notes are not offered, sold or advertised, directly or indirectly, in, into or from Switzerland on the basis of a public offering and will not be listed on the SIX Swiss Exchange or any other offering or regulated trading facility in Switzerland. Accordingly, neither this product 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 product 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 product 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 any offering of notes within the meaning of Financial Industry Regulatory Authority, Inc. (FINRA) Rule 5121. Consequently, any 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 any offering to an account over which it exercises discretionary authority without the prior specific written approval of the account holder.

U.S. FEDERAL INCOME TAX SUMMARY

The following summary of the material U.S. federal income and estate tax considerations of the acquisition, ownership, and disposition of the notes supplements, and to the extent inconsistent supersedes, the discussions under “U.S. Federal Income Tax Considerations” in the accompanying prospectus and is based upon the advice of Sidley Austin LLP, our tax counsel. This summary is based upon the Internal Revenue Code of 1986, as amended (the “**Code**”), regulations promulgated under the Code by the U.S. Treasury Department (“**Treasury**”) (including proposed and temporary regulations), rulings, current administrative interpretations and official pronouncements of the IRS, and judicial decisions, all as currently in effect and all of which are subject to differing interpretations or to change, possibly with retroactive effect. No assurance can be given that the IRS would not assert, or that a court would not sustain, a position contrary to any of the tax consequences described below. This summary does not include any description of the tax laws of any state or local governments, or of any foreign government, that may be applicable to a particular holder. If the tax consequences associated with the notes are different than those described below, they will be described in the applicable term sheet.

This summary is directed solely to U.S. Holders and Non-U.S. Holders that, except as otherwise specifically noted, will purchase the notes upon original issuance and will hold the notes as capital assets within the meaning of Section 1221 of the Code, which generally means property held for investment, and that are not excluded from the discussion under “U.S. Federal Income Tax Considerations” in the accompanying prospectus.

You should consult your own tax advisor concerning the U.S. federal income tax consequences to you of acquiring, owning, and disposing of the notes, as well as any tax consequences arising under the laws of any state, local, foreign, or other tax jurisdiction and the possible effects of changes in U.S. federal or other tax laws.

General

Principal at Risk Notes

Notes Treated as Single Financial Contracts

Although there is no statutory, judicial, or administrative authority directly addressing the characterization of the notes, in the opinion of our counsel, Sidley Austin LLP, and based on certain factual representations received from us, the notes with terms described in this product supplement that do not guarantee the return of principal at maturity and do not pay any coupons should be treated as single financial contracts with respect to the Market Measure that are “open transactions” for U.S. federal income tax purposes, and under the terms of the notes, we and every investor in the notes agree, in the absence of an administrative determination or judicial ruling to the contrary, to treat the notes in accordance with such characterization. This discussion assumes that the notes with terms described in this product supplement that do not guarantee the return of principal at maturity and do not pay any coupons constitute single financial contracts with respect to the Market Measure for U.S. federal income tax purposes. If the notes did not constitute single financial contracts, the tax consequences described below would be materially different.

Notes Treated as Income-Bearing Single Financial Contracts

Although there is no statutory, judicial, or administrative authority directly addressing the characterization of the notes with terms described in this product supplement that do not guarantee the return of principal at maturity and have one or more associated Contingent Coupon Payments, we intend to treat the notes for all tax purposes as income-bearing single financial contracts with respect to the Market Measure. Under the terms of the notes, we and every investor in the notes agree, in the absence of an administrative determination or judicial ruling to the contrary, to treat the notes in accordance with such characterization. In the opinion of our counsel, Sidley Austin LLP, it is reasonable to treat the notes with terms described in this product supplement that do not guarantee the return of principal at maturity and have one or more associated Contingent Coupon Payments as income-bearing single financial contracts with respect to the Market Measure, unless otherwise specified in the applicable term sheet. This discussion assumes that the notes with terms described in this product supplement that do not guarantee the return of

principal at maturity and have one or more associated Contingent Coupon Payments constitute income-bearing single financial contracts with respect to the Market Measure for U.S. federal income tax purposes. If the notes did not constitute income-bearing single financial contracts, the tax consequences described below would be materially different.

Notes Treated as Put Options and Deposits

No statutory, judicial or administrative authority directly addresses the proper treatment of the notes with terms described in this product supplement that do not guarantee the return of principal at maturity, have one or more associated Fixed Coupon Payments and have no upside at maturity or instruments substantially similar to such notes for U.S. federal income tax purposes, and no ruling is being requested from the IRS with respect to such notes. Significant aspects of the U.S. federal income tax consequences of an investment in the notes with one or more associated Fixed Coupon Payments are uncertain, and no assurance can be given that the IRS or a court will agree with the tax treatment described herein. In the opinion of our counsel, Sidley Austin LLP, the treatment of the notes with terms described in this product supplement that do not guarantee the return of principal at maturity, have one or more associated Fixed Coupon Payments and no upside at maturity described below is reasonable under current law; however, our counsel has advised us that it is unable to conclude affirmatively that this treatment is more likely than not to be upheld, and that alternative treatments are possible. Accordingly, you should consult your tax advisor regarding the U.S. federal income tax consequences of an investment in the notes with terms described in this product supplement that do not guarantee the return of principal at maturity, have one or more associated Fixed Coupon Payments and no upside at maturity (including alternative treatments of such notes). Unless otherwise expressly stated, the remainder of this discussion is based upon, and assumes, the treatment of each note with terms described in this product supplement that do not guarantee the return of principal at maturity, have one or more associated Fixed Coupon Payments and no upside at maturity as a Unit consisting of the Put Option and the Deposit, as well as the allocation of the Coupon payments and issue price of the note described below.

We intend to treat the notes with terms described in this product supplement that do not guarantee the return of principal at maturity, have one or more associated Fixed Coupon Payments and no upside at maturity for all tax purposes as a unit (a “**Unit**”) consisting of the following:

- (i) a put option (the “**Put Option**”) written by you to us that, if exercised, requires you to pay us an amount equal to the Deposit (as defined below) in exchange for a cash amount based upon the performance of the Market Measure; and
- (ii) a deposit with us of a fixed amount of cash, equal to the issue price of the Note, to secure your obligation under the Put Option (the “**Deposit**”) that pays you interest based on our cost of borrowing at the time of issuance (the “**Deposit Interest**”).

This characterization of the notes is not binding on the IRS or the courts. No statutory, judicial, or administrative authority directly addresses the characterization of the notes or any similar instruments for U.S. federal income tax purposes, and no ruling is being requested from the IRS with respect to their proper characterization and treatment. Due to the absence of authorities on point, significant aspects of the U.S. federal income tax consequences of an investment in the notes are not certain, and no assurance can be given that the IRS or any court will agree with the characterization and tax treatment described in this product supplement. Accordingly, you are urged to consult your tax advisor regarding all aspects of the U.S. federal income tax consequences of an investment in the notes, including possible alternative characterizations.

Unless otherwise stated, the following discussion as it applies to principal at risk notes is based on the characterization described above and assumes that there is a significant possibility of a significant loss of principal on an investment in the notes.

We will not attempt to ascertain whether the issuer of any Market Measure or any component stock included in a Market Measure that is an index would be treated as a “passive foreign investment company” (“**PFIC**”), within the meaning of Section 1297 of the Code, or a United States real property holding corporation, within the meaning of Section 897(c) of the Code. If the issuer of any Market Measure or of one or

more stocks included in a Market Measure that is an index were so treated, certain adverse U.S. federal income tax consequences could possibly apply to a holder of the notes. You should refer to information filed with the SEC by the issuer of any Market Measure or any component stock included in a Market Measure that is an index and consult your tax advisor regarding the possible consequences to you, if any, if any issuer of any Market Measure or any component stock included in a Market Measure that is an index is or becomes a PFIC or is or becomes a United States real property holding corporation.

Principal Return at Maturity Notes

Notes Treated as Contingent Payment Debt Instruments

Unless otherwise noted in the applicable term sheet, if your notes have a term of more than one year and guarantee the return of principal at maturity, the notes will be treated as “contingent payment debt instruments” for U.S. federal income tax purposes, subject to taxation under the “noncontingent bond method.”

Notes Treated as Short-Term Debt Securities

Unless otherwise noted in the applicable term sheet, if your notes have a term of one year or less and guarantee the return of principal at maturity, 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 short-term debt securities that provide for contingent payments.

U.S. Holders

Principal at Risk Notes

Notes Treated as Single Financial Contracts

Upon receipt of a cash payment at maturity or upon a sale, exchange or redemption of the notes that do not guarantee the return of principal at maturity and do not pay any coupons prior to maturity, a U.S. Holder generally will recognize capital gain or loss equal to the difference between the amount realized and the U.S. Holder’s tax basis in the notes. A U.S. Holder’s tax basis in the notes will equal the amount paid by that holder to acquire them. Subject to the discussion below concerning the possible application of the “constructive ownership” rules of Section 1260 of the Code, this capital gain or loss generally will be long-term capital gain or loss if the U.S. Holder held the notes for more than one year. If the U.S. Holder held the notes for one year or less, the gain or loss generally will be short-term capital gain or loss. The deductibility of capital losses is subject to limitations. A U.S. Holder should not be required to recognize income over the term of the notes prior to maturity, other than pursuant to an earlier taxable disposition of the notes.

Notes Treated as Income-Bearing Single Financial Contracts

Although the U.S. federal income tax treatment of a Contingent Coupon Payment on notes that do not guarantee the return of principal at maturity is uncertain, we intend to take the position, and the following discussion assumes, that any Contingent Coupon Payment constitutes taxable ordinary income to a U.S. Holder at the time received or accrued in accordance with the U.S. Holder’s regular method of accounting. By purchasing the notes you agree, in the absence of an administrative determination or judicial ruling to the contrary, to treat any Contingent Coupon Payment as described in the preceding sentence.

Upon receipt of a cash payment at maturity or upon a sale, exchange or redemption of the notes prior to maturity, a U.S. Holder generally will recognize capital gain or loss equal to the difference between the amount realized (other than amounts representing any Contingent Coupon Payment, which would be taxed as described above) and the U.S. Holder’s tax basis in the notes. A U.S. Holder’s tax basis in the notes will equal the amount paid by that holder to acquire them. Subject to the discussion below concerning the possible application of the “constructive ownership” rules of Section 1260 of the Code, this capital gain or loss

generally will be long-term capital gain or loss if the U.S. Holder held the notes for more than one year. The deductibility of capital losses is subject to limitations.

Notes Treated as Put Options and Deposits

The Deposit Interest payments will be included in the income of a U.S. Holder as interest at the time that such interest is accrued or received in accordance with such U.S. Holder's regular method of tax accounting. The Put Option premium will not be included in the income of a U.S. Holder until the sale, exchange, redemption or maturity of the notes. Accordingly, all of the Put Option premium payments on the notes (except for the last Put Option premium payment) generally will not be included in the income of a U.S. Holder when they are received.

If at maturity the U.S. Holder receives cash equal to the full principal amount plus the last Deposit Interest payment and the last Put Option premium payment, then such U.S. Holder (i) would include the last Deposit Interest payment in income as interest in the manner described above and (ii) would recognize short-term capital gain equal to the entire amount of Put Option premiums received, which amount is equal to the sum of all of the Put Option premium payments received.

If at maturity the U.S. Holder receives an amount of cash that is less than the full principal amount and receives the last Deposit Interest payment and the last Put Option premium payment, then such U.S. Holder (i) will include the last Deposit Interest payment in income as interest in the manner described above and (ii) will recognize long-term capital gain or loss (or, short-term capital gain or loss if the term of the notes is one year or less) with respect to the remaining cash received at maturity (other than the last Put Option premium payment) in an amount equal to the difference between (1) the sum of all of the Put Option premiums received (including the last Put Option premium payment) and (2) the excess of the principal amount of the note over the amount of such cash received.

Upon a redemption of the notes prior to maturity, a U.S. Holder (i) would include the last Deposit Interest payment in income as interest in the manner described above and (ii) would recognize short-term capital gain equal to the sum of all the Put Option premium payments received.

Upon a sale or exchange of a note prior to maturity (except upon redemption of the notes prior to maturity, which is described above), a U.S. Holder will generally recognize short-term or long-term capital gain or loss with respect to the Deposit (depending upon the U.S. Holder's holding period for the notes). The U.S. Holder will also generally recognize short-term capital gain or loss with respect to the Put Option. For purposes of determining the amount of such gain or loss, a U.S. Holder should apportion the amount realized on the sale or exchange (other than amounts attributable to accrued but unpaid Deposit Interest payments, which would be taxed as described above) between the Deposit and the Put Option based upon their respective fair market values on the date of such sale or exchange. In general, the amount of capital gain or loss on the Deposit will equal the amount realized that is attributable to the Deposit, less the U.S. Holder's adjusted tax basis in the Deposit. The amount realized that is attributable to the Put Option plus the total Put Option premiums previously received by the U.S. Holder should be treated as short-term capital gain. Notwithstanding the foregoing, if the fair market value of the Deposit on the date of such sale or exchange exceeds the total amount realized on the sale or exchange (other than amounts attributable to accrued but unpaid Deposit Interest payments), the U.S. Holder should be treated as having (i) sold or exchanged the Deposit for an amount equal to its fair market value on such date and (ii) made a payment (the "**Put Option Assumption Payment**") equal to the amount of such excess in exchange for the purchaser's assumption of the U.S. Holder's rights and obligations under the Put Option. In such event, the U.S. Holder should recognize short-term capital gain or loss in respect of the Put Option in an amount equal to the difference between the total Put Option premiums previously received by the U.S. Holder and the Put Option Assumption Payment.

Alternative Tax Treatments. Due to the absence of authorities that directly address the proper tax treatment of notes that do not guarantee the return of principal at maturity, prospective investors are urged to consult their tax advisors regarding all possible alternative tax treatments of an investment in the notes. In particular, if the notes have a term that exceeds one year, the IRS could seek to subject the notes to the Treasury regulations governing contingent payment debt instruments. If the IRS were successful in that regard, the timing and character of income on the notes would be affected significantly. Among other things, a

U.S. Holder would be required to accrue original issue discount every year at a “comparable yield” determined at the time of issuance. In addition, any gain realized by a U.S. Holder at maturity or upon a sale, exchange or redemption of the notes generally would be treated as ordinary income, and any loss realized at maturity or upon a sale, exchange or redemption of the notes generally would be treated as ordinary loss to the extent of the U.S. Holder’s prior accruals of original issue discount, and as capital loss thereafter. If the notes have a term of one year or less, the IRS could assert that the notes are short-term debt instruments. If the IRS were successful in that regard, a U.S. holder who uses the accrual method of accounting generally should be required to accrue any original issue discount on the notes on a straight-line basis. At maturity, or upon a sale, exchange or redemption, a U.S. holder using either a cash or accrual method of accounting generally should recognize taxable gain (all or a portion of which may be treated as ordinary income) or loss in an amount equal to the difference between the amount realized and such holder’s tax basis in the notes.

The IRS could also assert that the notes are short-term debt instruments, with the result that the timing and character of income or loss on the notes might differ from the tax treatment described above.

In addition, it is possible that the notes with terms described in this product supplement that have one or more associated Contingent Coupon Payments could be treated as a unit consisting of a deposit and a put option written by the note holder, in which case the timing and character of income on the notes would be affected significantly.

The IRS released Notice 2008-2 (the “**Notice**”), which sought comments from the public on the taxation of financial instruments currently taxed as “prepaid forward contracts.” This Notice addresses instruments such as the notes. According to the Notice, the IRS and Treasury are considering whether a holder of an instrument such as the notes should be required to accrue ordinary income on a current basis, regardless of whether any payments are made prior to maturity. It is not possible to determine what guidance the IRS and Treasury will ultimately issue, if any. Any such future guidance may affect the amount, timing and character of income, gain, or loss in respect of the notes, possibly with retroactive effect.

The IRS and Treasury are also considering additional issues, including whether additional gain or loss from such instruments should be treated as ordinary or capital, whether foreign holders of such instruments should be subject to withholding tax on any deemed income accruals, whether Section 1260 of the Code, concerning certain “constructive ownership transactions,” generally applies or should generally apply to such instruments, and whether any of these determinations depend on the nature of the underlying asset.

In addition, proposed Treasury regulations require the accrual of income on a current basis for contingent payments made under certain notional principal contracts. The preamble to the regulations states that the “wait and see” method of accounting does not properly reflect the economic accrual of income on those contracts, and requires current accrual of income for some contracts already in existence. While the proposed regulations do not apply to prepaid forward contracts, the preamble to the proposed regulations expresses the view that similar timing issues exist in the case of prepaid forward contracts. If the IRS or Treasury publishes future guidance requiring current economic accrual for contingent payments on prepaid forward contracts, it is possible that you could be required to accrue income over the term of the notes.

Because of the absence of authority regarding the appropriate tax characterization of the notes, it is also possible that the IRS could seek to characterize the notes in a manner that results in tax consequences that are different from those described above. For example, the IRS could possibly assert that any gain or loss that a holder may recognize at maturity or upon the sale, exchange or redemption of the notes should be treated as ordinary gain or loss.

If any Market Measure is an index that periodically rebalances, it is possible that the notes could be treated as a series of income-bearing single financial contracts, each of which matures on the next rebalancing date. If the notes were properly characterized in such a manner, a U.S. Holder would be treated as disposing of the notes on each rebalancing date in return for new notes that mature on the next rebalancing date, and a U.S. Holder would accordingly likely recognize capital gain or loss on each rebalancing date equal to the difference between the holder’s tax basis in the notes (which would be adjusted to take into account any prior recognition of gain or loss) and the fair market value of the notes on such date.

Possible Application of Section 1260 of the Code. As described above, the IRS, as indicated in the Notice, is considering whether Section 1260 of the Code generally applies or should apply to notes that do not guarantee the return of principal at maturity, including in situations where a Market Measure is not the type of financial asset described under Section 1260 of the Code.

If any Market Measure is the type of financial asset described under Section 1260 of the Code (including, among others, any equity interest in pass-through entities such as exchange traded funds, regulated investment companies, real estate investment trusts, partnerships, and passive foreign investment companies, each a “**Section 1260 Financial Asset**”), while the matter is not entirely clear, there may exist a risk that an investment in the notes will be treated, in whole or in part, as a “constructive ownership transaction” to which Section 1260 of the Code applies. If Section 1260 of the Code applies, all or a portion of any long-term capital gain recognized by a U.S. Holder in respect of the notes will be recharacterized as ordinary income (the “**Excess Gain**”). In addition, an interest charge will also apply to any deemed underpayment of tax in respect of any Excess Gain to the extent such gain would have resulted in gross income inclusion for the U.S. Holder in taxable years prior to the taxable year of the sale, exchange, redemption or settlement (assuming such income accrued at a constant rate equal to the applicable federal rate as of the date of sale, exchange, redemption or settlement).

If an investment in the notes is treated as a constructive ownership transaction, it is not clear to what extent any long-term capital gain of a U.S. Holder in respect of notes will be recharacterized as ordinary income. It is possible, for example, that the amount of the Excess Gain (if any) that would be recharacterized as ordinary income in respect of the notes will equal the excess of (i) any long-term capital gain recognized by the U.S. Holder in respect of the notes and attributable to Section 1260 Financial Assets, over (ii) the “net underlying long-term capital gain” (as defined in Section 1260 of the Code) such U.S. Holder would have had if such U.S. Holder had acquired an amount of the corresponding Section 1260 Financial Assets at fair market value on the settlement date for an amount equal to the portion of the issue price of the notes attributable to the corresponding Section 1260 Financial Assets and sold such amount of Section 1260 Financial Assets at maturity or upon sale, exchange or redemption of the notes at fair market value. Unless otherwise established by clear and convincing evidence, the net underlying long-term capital gain is treated as zero and therefore it is possible that all long-term capital gain recognized by a U.S. Holder in respect of the notes will be recharacterized as ordinary income if Section 1260 of the Code applies to an investment in the notes. U.S. Holders should consult their tax advisors regarding the potential application of Section 1260 of the Code to an investment in the notes.

Principal Return at Maturity Notes

Notes Treated as Contingent Payment Debt Instruments

If the notes are properly characterized as contingent payment debt instruments for U.S. federal income tax purposes, such notes generally will be subject to Treasury regulations governing contingent payment debt instruments. Under those regulations, a U.S. Holder will be required to report original issue discount based on a “comparable yield” and a “projected payment schedule,” both as described below, established by us for determining interest accruals and adjustments with respect to the note. A U.S. Holder that does not use the “comparable yield” and follow the “projected payment schedule” to calculate its original issue discount on a note must timely disclose and justify the use of other estimates to the IRS. No payments on a contingent payment debt instrument are treated as qualified stated interest.

A “comparable yield” with respect to a note generally is the yield at which we could issue a fixed-rate debt instrument with terms similar to those of the note (taking into account for this purpose the level of subordination, term, timing of payments, and general market conditions, but ignoring any adjustments for liquidity or the riskiness of the contingencies with respect to the note). Notwithstanding the foregoing, a comparable yield must not be less than the applicable U.S. federal rate based on the overall maturity of the note.

A “projected payment schedule” with respect to a note generally is a series of projected payments, the amount and timing of which would produce a yield to maturity on that note equal to the comparable yield.

This projected payment schedule will consist of a projection for tax purposes of each non-contingent and contingent payment.

Based on the comparable yield and the projected payment schedule of the notes, a U.S. Holder of a note (regardless of its tax accounting method) generally will be required to accrue as original issue discount the sum of the daily portions of interest on the note for each day in the taxable year on which the holder held the note, adjusted upward or downward to reflect the difference, if any, between the actual and projected amount of any contingent payments on the note, as set forth below. The daily portions of interest for a note are determined by allocating to each day in an accrual period the ratable portion of interest on the note that accrues in the accrual period. The amount of interest on the note that accrues in an accrual period is the product of the comparable yield on the note (adjusted to reflect the length of the accrual period) and the adjusted issue price of the note at the beginning of the accrual period. The adjusted issue price of a note at the beginning of the first accrual period will equal its issue price (as described above). For any subsequent accrual period, the adjusted issue price will be (i) the sum of the issue price of the note and any interest previously accrued on the note by a holder (without regard to any positive or negative adjustments, described below) minus (ii) the amount of any projected payments on the note for previous accrual periods.

A U.S. Holder of a note generally will be required to include in income original issue discount in excess of actual cash payments received for certain taxable years. In addition to the accrued original issue discount, a U.S. Holder will be required to recognize interest income equal to the amount of any positive adjustment for a note for the taxable year in which a contingent payment is paid (including a payment of interest at maturity). A positive adjustment is the excess of actual payments in respect of contingent payments over the projected amount of contingent payments. A U.S. Holder also will be required to account for any “negative adjustment” for a taxable year in which a contingent payment is paid. A negative adjustment is the excess of the projected amounts of contingent payments over actual payments in respect of the contingent payments. A net negative adjustment is the amount by which total negative adjustments in a taxable year exceed total positive adjustments in such taxable year. A net negative adjustment (i) will first reduce the amount of interest for the note that a U.S. Holder would otherwise be required to include in income in the taxable year, and (ii) to the extent of any excess, will result in an ordinary loss equal to that portion of the excess as does not exceed the excess of (a) the amount of all previous interest inclusions under the note over (b) the total amount of the U.S. Holder’s net negative adjustments treated as ordinary loss on the note in prior taxable years. A net negative adjustment is not treated as a deductible miscellaneous itemized deduction under Section 67 of the Code. Any net negative adjustment in excess of the amounts described above in (i) and (ii) will be carried forward to offset future interest income on the note or to reduce the amount realized on a sale, exchange, retirement or other disposition of the note.

If a contingent payment becomes fixed (within the meaning of applicable Treasury regulations) more than six months before its due date, a positive or negative adjustment, as appropriate, is made to reflect the difference between the present value of the amount that is fixed and the present value of the projected amount. The present value of each amount is determined by discounting the amount from the date the payment is due to the date the payment becomes fixed, using a discount rate equal to the comparable yield. If all contingent payments on the note become fixed, substantially contemporaneously, applicable Treasury regulations provide that, with regard to contingent payments that become fixed on a day that is more than six months before their due date, U.S. Holders should take into account positive or negative adjustments in respect of such contingent payments over the period to which they relate in a reasonable manner. For purposes of the preceding sentence, a payment (including an amount payable at maturity) will be treated as fixed if (and when) all remaining contingencies with respect to it are remote or incidental within the meaning of the applicable Treasury regulations. A U.S. Holder’s tax basis in the note and the character of any gain or loss on the sale of the note will also be affected. U.S. Holders should consult their tax advisors concerning the application of these special rules, including as to what would be a “reasonable manner” in their particular situation.

We expect that the applicable supplement will include a table that sets forth the following information with respect to the principal amount of the notes for each of the applicable accrual periods through the maturity date of the notes: (i) the amount of interest deemed to have accrued during the accrual period, and (ii) the total amount of interest deemed to have accrued from the settlement date through the end of the

accrual period. The table will be based upon a projected payment schedule and a comparable yield. The comparable yield will be determined based upon market conditions as of the date of the applicable supplement. We will determine the actual projected payment schedule and the actual comparable yield on the pricing date. Any tax accrual table will be set forth in the final supplement prepared in connection with the initial sale of the notes.

Upon a sale, exchange, retirement, or other disposition of a note prior to maturity, a U.S. Holder generally will recognize taxable gain or loss equal to the difference between the amount realized on the sale, exchange, retirement, or other disposition and that holder's tax basis in the note. A U.S. Holder's tax basis in a note generally will equal the cost of that note, increased by the amount of original issue discount previously accrued by the holder for that note (without regard to any positive or negative adjustments) and reduced by any projected payments for previous periods on the notes. A U.S. Holder generally will treat any gain as interest income, and will treat any loss as ordinary loss to the extent of the excess of previous interest inclusions over the total negative adjustments previously taken into account as ordinary losses, and the balance as long-term or short-term capital loss depending upon the U.S. Holder's holding period for the note. The deductibility of capital losses by a U.S. Holder is subject to limitations.

U.S. Holders considering the purchase of notes with these features should carefully examine the applicable supplement and should consult their own tax advisors regarding the U.S. federal income tax consequences to a U.S. Holder of the purchase, ownership and disposition of such notes.

Notes Treated as Short-Term Debt Securities

Treasury regulations provide that no payments of interest on a short-term debt security are treated as qualified stated interest. Accordingly, in determining the amount of discount on a short-term debt security, all interest payments, including stated interest, are included in the short-term debt security's stated redemption price at maturity.

In general, individual and certain other U.S. Holders using the cash basis method of tax accounting are not required to include accrued discount on short-term debt securities in income currently unless they elect to do so, but they are required to include any stated interest in income as the interest is received, except to the extent already included under such election. However, a cash basis U.S. Holder will be required to treat any gain realized on a sale, exchange, or retirement of the short-term debt security as ordinary income to the extent such gain does not exceed the discount accrued with respect to the short-term debt security, which will be determined on a straight-line basis unless the holder makes an election to accrue the discount under the constant-yield method, through the date of sale, exchange or retirement. Any gain in excess of this amount will be treated as short-term capital gain. Any loss recognized will be treated as a capital loss. In addition, a cash basis U.S. Holder that does not elect to include accrued discount in income currently will not be allowed to deduct any of the interest paid or accrued on any indebtedness incurred or maintained to purchase or carry a short-term debt security (in an amount not exceeding the deferred income), but instead will be required to defer deductions for such interest until the deferred income is realized upon the maturity of the short-term debt security or its earlier disposition in a taxable transaction. Notwithstanding the foregoing, a cash-basis U.S. Holder of a short-term debt security may elect to include accrued discount in income on a current basis. If this election is made, the limitation on the deductibility of interest described above will not apply.

A U.S. Holder using the accrual method of tax accounting generally will be required to include accrued discount on a short-term debt security in income on a current basis, on either a straight-line basis or, at the election of the holder, under the constant-yield method based on daily compounding.

Regardless of whether a U.S. Holder is a cash-basis or accrual-basis holder it may elect to include accrued "acquisition discount" with respect to a short-term debt security in income on a current basis. Acquisition discount is the excess of the remaining redemption amount of the short-term debt security at the time of acquisition over the purchase price. Acquisition discount will be treated as accruing on a straight-line basis or, at the election of the holder, under a constant yield method based on daily compounding. If a U.S. Holder elects to include accrued acquisition discount in income, the rules for including original issue discount

will not apply. In addition, the market discount rules described above will not apply to short-term debt securities.

Non-U.S. Holders

Principal at Risk Notes

Notes Treated as Single Financial Contracts

Except as discussed below, a Non-U.S. Holder generally will not be subject to U.S. federal income or withholding tax for amounts paid in respect of the notes that do not guarantee the return of principal at maturity and do not pay any coupons, provided that the Non-U.S. Holder complies with applicable certification requirements and that the payment is not effectively connected with the conduct by the Non-U.S. Holder of a U.S. trade or business.

Notes Treated as Income-Bearing Single Financial Contracts

Because the U.S. federal income tax treatment of the notes that do not guarantee the return of principal at maturity and provide for one or more associated Contingent Coupon Payments (including the tax treatment of any Contingent Coupon Payment) is uncertain, we (or the applicable paying agent) will withhold U.S. federal income tax at a 30% rate (or at a lower rate under an applicable income tax treaty) on the entire amount of any Contingent Coupon Payment made unless such payments are effectively connected with the conduct by the Non-U.S. Holder of a trade or business in the U.S. (in which case, to avoid withholding, the Non-U.S. Holder will be required to provide a Form W-8ECI). We (or the applicable paying agent) will not pay any additional amounts in respect of such withholding. To claim benefits under an income tax treaty, a Non-U.S. Holder must obtain a taxpayer identification number and certify as to its eligibility under the appropriate treaty's limitations on benefits article, if applicable. In addition, special rules may apply to claims for treaty benefits made by Non-U.S. Holders that are entities rather than individuals. The availability of a lower rate of withholding under an applicable income tax treaty will depend on whether such rate applies to the characterization of the payments under U.S. federal income tax laws. A Non-U.S. Holder that is eligible for a reduced rate of U.S. federal withholding tax pursuant to an income tax treaty may obtain a refund of any excess amounts withheld by filing an appropriate claim for refund with the IRS.

Except as discussed below, a Non-U.S. Holder generally will not be subject to U.S. federal income or withholding tax for amounts paid in respect of the notes that do not guarantee the return of principal at maturity and provide for one or more associated Contingent Coupon Payments (not including for the avoidance of doubt amounts representing any Contingent Coupon Payment which would be subject to the rules discussed in the previous paragraph) upon the sale, exchange or redemption of the notes or their settlement at maturity, provided that the Non-U.S. Holder complies with applicable certification requirements and that the payment is not effectively connected with the conduct by the Non-U.S. Holder of a U.S. trade or business. Notwithstanding the foregoing, gain from the sale, exchange or redemption of the notes or their settlement at maturity may be subject to U.S. federal income tax if that Non-U.S. Holder is a non-resident alien individual and is present in the U.S. for 183 days or more during the taxable year of the sale, exchange, redemption or settlement and certain other conditions are satisfied.

Notes Treated as Put Options and Deposits

Assuming the treatment of the notes treated as Put Options and Deposits is respected and subject to the discussions below regarding the potential application of Section 871(m) of the Code, of Section 897 of the Code, and the discussions in the accompanying prospectus regarding FATCA, Fixed Coupon Payments with respect to a note, and gain realized on the sale, exchange or redemption of such note, should not be subject to U.S. federal income or withholding tax under current law, provided that:

- the Non-U.S. Holder does not own, directly or by attribution, ten percent or more of the total combined voting power of all classes of our stock entitled to vote;
- the Non-U.S. Holder is not a controlled foreign corporation related, directly or indirectly, to us through stock ownership;

- the Non-U.S. Holder is not a bank receiving interest under Section 881(c)(3)(A) of the Code;
- the certification requirement described below has been fulfilled with respect to the beneficial owner; and
- the payment is not effectively connected with the conduct by the Non-U.S. Holder of a U.S. trade or business.

Certification Requirement. The certification requirement referred to in the preceding paragraph will be fulfilled if the beneficial owner of a note (or a financial institution holding a note on behalf of the beneficial owner) furnishes to the applicable withholding agent an IRS Form W-8BEN or IRS Form W-8BEN-E (or other appropriate form), on which the beneficial owner certifies under penalties of perjury that it is not a U.S. person.

Moreover, among the issues addressed in the Notice described in “U.S. Holders--Alternative Tax Treatments” is the degree, if any, to which income realized by Non-U.S. Holders should be subject to withholding tax. It is possible that any Treasury regulations or other guidance issued after consideration of this issue could materially and adversely affect the withholding tax consequences of ownership and disposition of the notes, possibly with retroactive effect. Accordingly, prospective investors should consult their tax advisors regarding all aspects of the U.S. federal income tax consequences of an investment in the notes treated as Put Options and Deposits, including the possible implications of the Notice discussed above. Prospective investors should note that we currently do not intend to withhold on any of the payments made with respect to the notes to Non-U.S. Holders (subject to compliance by such holders with the certification requirement described above, to the discussion regarding Section 871(m) below and to the discussion regarding FATCA in the accompanying prospectus). However, in the event of a change of law or any formal or informal guidance by the IRS, the Treasury or Congress, we (or the applicable paying agent) may decide to withhold on payments made with respect to the notes to Non-U.S. Holders and we will not be required to pay any additional amounts with respect to amounts withheld.

Notwithstanding the foregoing, gain from the sale, exchange, or redemption of the notes or their settlement at maturity may be subject to U.S. federal income tax if that Non-U.S. Holder is a non-resident alien individual and is present in the U.S. for 183 days or more during the taxable year of the sale, exchange, redemption or settlement and certain other conditions are satisfied.

FIRPTA. Section 897 of the Code, commonly referred to as “FIRPTA,” applies to certain interests in entities that beneficially own significant amounts of United States real property interests (each, a “**USRPI**”). As discussed above, we will not attempt to ascertain whether the issuer of any Market Measure or the issuer of any component stock included in a Market Measure should be treated as a USRPHC for purposes of Section 897 of the Code (including a non-corporate entity treated for relevant purposes of Section 897 of the Code as a USRPHC). If a relevant issuer were so treated, it is possible that, subject to the exceptions discussed in the following paragraph, a note could be treated as a USRPI, in which case any gain from the disposition of the note would generally be subject to U.S. federal income tax and would be required to be reported by the non-U.S. holder on a U.S. federal income tax return, generally in the same manner as if the non-U.S. holder were a U.S. holder, and would in certain cases be subject to withholding in the amount of 15% of the gross proceeds of such disposition.

An exception to the FIRPTA rules applies in respect of interests in entities that have a regularly traded class of interests outstanding. Under this exception, a security that is not “regularly traded” on an established securities market generally should not be subject to the FIRPTA rules unless its fair market value upon acquisition exceeds 5% of the relevant issuer’s regularly traded class of interests, as specified in the applicable Treasury regulations. In the case of securities that are regularly traded, an interest in 5% or less of the outstanding securities of that class or series generally should not be subject to the FIRPTA rules. Certain attribution and aggregation rules apply, and prospective purchasers are urged to consult their tax advisors regarding whether their ownership interest in the securities will be subject to an exemption from the FIRPTA rules in light of their circumstances, including any other interest they might have in a relevant issuer.

Principal Return at Maturity Notes

A Non-U.S. Holder generally will not be subject to U.S. federal income or withholding tax on any capital gain or market discount realized on the sale, exchange, retirement, or other disposition of notes that guarantee the return of principal at maturity, provided that: (a) the gain is not effectively connected with the conduct of a trade or business within the United States, or a permanent establishment maintained in the United States if certain tax treaties apply, (b) in the case of a Non-U.S. Holder that is an individual, the Non-U.S. Holder is not present in the United States for 183 days or more in the taxable year of the sale, exchange, or other disposition of the note, and (c) the Non-U.S. Holder is not subject to tax pursuant to certain provisions of U.S. federal income tax law applicable to certain expatriates. An individual Non-U.S. Holder who is present in the United States for 183 days or more in the taxable year of sale, exchange, or other disposition of a note, provided that certain other conditions are met, will be subject to U.S. federal income tax at a rate of 30% on the gain realized on the sale, exchange, or other disposition of such note.

Income Effectively Connected with a Trade or Business within the United States

If a Non-U.S. Holder of the notes is engaged in the conduct of a trade or business within the U.S. and if any interest (including any original issue discount) and gain realized on the settlement at maturity, or upon sale, exchange or redemption of the notes, is effectively connected with the conduct of such trade or business (and, if certain tax treaties apply, is attributable to a permanent establishment maintained by the Non-U.S. Holder in the U.S.), the Non-U.S. Holder, although exempt from U.S. federal withholding tax, generally will be subject to U.S. federal income tax on such interest (including any original issue discount) and gain on a net income basis in the same manner as if it were a U.S. Holder. Such Non-U.S. Holders should read the material under the heading “U.S. Holders” for a description of the U.S. federal income tax consequences of acquiring, owning, and disposing of the notes. In addition, if such Non-U.S. Holder is a foreign corporation, it may also be subject to a branch profits tax equal to 30% (or such lower rate provided by any applicable tax treaty) of a portion of its earnings and profits for the taxable year that are effectively connected with its conduct of a trade or business in the U.S., subject to certain adjustments.

Dividend Equivalent Payments

A “dividend equivalent” payment is treated as a dividend from sources within the United States and such payments generally would be subject to a 30% U.S. withholding tax if paid to a Non-U.S. Holder. Under Treasury regulations, payments (including deemed payments) with respect to equity-linked instruments (“ELIs”) that are “specified ELIs” may be treated as dividend equivalents if such specified ELIs reference an interest in an “underlying security,” which is generally any interest in an entity taxable as a corporation for U.S. federal income tax purposes if a payment with respect to such interest could give rise to a U.S. source dividend. However, IRS guidance provides that withholding on dividend equivalent payments will not apply to specified ELIs that are not delta-one instruments and that are issued before January 1, 2027. However, it is possible that the notes could be treated as deemed reissued for U.S. federal income tax purposes upon the occurrence of certain events affecting the Market Measure or the notes, and following such occurrence the notes could be treated as subject to withholding on dividend equivalent payments. Non-U.S. Holders that enter, or have entered, into other transactions in respect of the Market Measure or the notes should consult their tax advisors as to the application of the dividend equivalent withholding tax in the context of the notes and their other transactions. If any payments are treated as dividend equivalents subject to withholding, we (or the applicable paying agent) would be entitled to withhold taxes without being required to pay any additional amounts with respect to amounts so withheld.

As discussed above, alternative characterizations of the notes for U.S. federal income tax purposes are possible. Should an alternative characterization, by reason of change or clarification of the law, by regulation or otherwise, cause payments as to the notes to become subject to withholding tax in addition to the withholding tax described above, tax will be withheld at the applicable statutory rate. Non-U.S. Holders should consult their own tax advisors regarding the tax consequences of such alternative characterizations.

U.S. Federal Estate Tax

Under current law, while the matter is not entirely clear, individual Non-U.S. Holders, and entities whose property is potentially includible in those individuals' gross estates for U.S. federal estate tax purposes (for example, a trust funded by such an individual and with respect to which the individual has retained certain interests or powers), should note that, absent an applicable treaty benefit, a note is likely to be treated as U.S. situs property, subject to U.S. federal estate tax. These individuals and entities should consult their own tax advisors regarding the U.S. federal estate tax consequences of investing in a note.

Backup Withholding and Information Reporting

Please see the discussion under "U.S. Federal Income Tax Considerations—Backup Withholding and Information Reporting" in the accompanying prospectus for a description of the applicability of the backup withholding and information reporting rules to payments made on the notes.

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 include: 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 non-exempt prohibited transaction under ERISA or the Code (or, with respect to a governmental plan, under any similar applicable law or regulation), and (c) neither The Goldman Sachs Group, Inc. nor any of its affiliates is a “fiduciary” (within the meaning of Section 3(21) of ERISA or, with respect to a governmental plan, under any similar applicable law or regulation) with respect to the purchaser or holder in connection with such person’s acquisition, disposition or holding of the notes, or as a result of any exercise by The Goldman Sachs Group, Inc. or any of its affiliates of any rights in connection with the notes, and neither The Goldman Sachs Group, Inc. nor any of its affiliates has provided investment advice in connection with such person’s acquisition, disposition or holding of the notes.

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

Prospectus Supplement to the Prospectus, as it may be amended from time to time, that forms a part of
Registration Statement No. 333-284538.



GS Finance Corp.
Medium-Term Notes, Series F
guaranteed by
The Goldman Sachs Group, Inc.

TERMS OF SALE

The following terms may apply to the notes that GS Finance Corp. may sell from time to time. The final terms of your notes will be included in the applicable pricing supplement. GS Finance Corp. will receive between 99.100% and 99.950% of the proceeds from the sale of the notes, after paying the agents' commissions of between 0.050% and 0.900%, unless a different agents' commission is specified in the applicable pricing supplement.

- generally, stated maturity of 12 months or longer and, for indexed notes, stated maturity of six months or longer
- fixed or floating interest rate, zero coupon or issued with original issue discount; a floating interest rate may be based on:
 - CMS rate;
 - CMT rate;
 - federal funds rate;
 - SOFR;
 - SOFR ICE Swap Rate; and/or
 - treasury rate
- amount of principal or interest may be determined by reference to one or more underlying indices, commodities, securities or other measures or instruments
- may be book-entry form only
- may be subject to redemption at the option of GS Finance Corp. or repayment at the option of the holder
- not amortized or subject to a sinking fund
- interest on fixed rate notes paid monthly, quarterly, semi-annually or annually
- interest on floating rate notes paid monthly, quarterly, semi-annually or annually
- denominations of \$1,000 and integral multiples of \$1,000 in excess thereof, unless otherwise specified in the applicable pricing supplement
- may be denominated in a currency other than U.S. dollars or in a composite currency
- settlement in immediately available funds
- fully and unconditionally guaranteed by The Goldman Sachs Group, Inc.

GS Finance Corp. does not plan to list the notes for trading on a securities exchange unless otherwise specified in the applicable pricing supplement.

Neither the U.S. 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 supplement, the accompanying prospectus or any pricing supplement. 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.

GS Finance Corp. may sell the notes directly or through one or more agents or dealers, including the agent listed below. The agents are not required to sell any particular amount of the notes.

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

Goldman Sachs & Co. LLC

Prospectus Supplement dated February 14, 2025.

USE OF PROCEEDS

We intend to lend the net proceeds from the sales of notes to The Goldman Sachs Group, Inc. or its affiliates. The Goldman Sachs Group, Inc. expects to use the proceeds from such loans to provide additional funds for its operations and for other general corporate purposes, although it has not yet determined a specific use.

We will receive the net proceeds only from sales of the notes made in connection with their original issuance. We have not received, and do not expect to receive, any proceeds from resales of the notes by Goldman Sachs & Co. LLC ("GS&Co.") or any of our other affiliates in market-making transactions. We expect our affiliates to retain the proceeds of their market-making resales and not to pay the proceeds to us or The Goldman Sachs Group, Inc.

DESCRIPTION OF NOTES WE MAY OFFER

References to “we”, “our” and “us” refer only to GS Finance Corp. and not to The Goldman Sachs Group, Inc.; references to “The Goldman Sachs Group, Inc.” refer only to The Goldman Sachs Group, Inc. and not to its consolidated subsidiaries. Also, 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 or another depository. Owners of beneficial interests in the notes should read the section entitled “Legal Ownership and Book-Entry Issuance” in the accompanying prospectus.

Information About Our Medium-Term Notes, Series F Program

The notes are a separate series of our debt securities, which will be fully and unconditionally guaranteed by The Goldman Sachs Group, Inc. We summarize various terms that apply generally to our debt securities, including the notes, in the accompanying prospectus under the caption “Description of Debt Securities We May Offer”. The following description of the notes supplements that description of the debt securities. Consequently, you should read this prospectus supplement together with the accompanying prospectus in order to understand the general terms of the notes issued under our Medium-Term Notes, Series F program. However, if terms used in this prospectus supplement are inconsistent with the accompanying prospectus, this prospectus supplement controls with regard to the notes.

This section summarizes the material terms that will apply generally to notes issued under our Medium-Term Notes, Series F program. The specific terms of your notes will be described in the applicable pricing supplement that will accompany this prospectus supplement and the accompanying prospectus. Those terms will supplement and, if applicable, may modify or replace the general terms described in this section and in the accompanying prospectus. If your pricing supplement is inconsistent with this prospectus supplement or the accompanying prospectus, your pricing supplement will control with regard to your notes.

Consequently, the statements we make in this section or in the accompanying prospectus may not apply to your notes.

When we refer to your pricing supplement, we mean the pricing supplement or other supplements to this prospectus supplement describing the specific terms of the notes you purchase. When we refer to the accompanying prospectus, we mean our prospectus, as amended from time to time, that forms a part of Registration Statement No. 333-284538. Unless we say otherwise below, the terms we use in this prospectus supplement that we also use in the accompanying prospectus have the meanings we give them in that document. Similarly, the terms we use in your pricing supplement that we also use in this prospectus supplement will have the meanings we give them in this document, unless we say otherwise in your pricing supplement.

The Notes Will Be Issued Under the GSFC 2008 Indenture

The notes issued under our Medium-Term Notes, Series F program are governed by our Senior Debt Indenture, dated as of October 10, 2008, as supplemented by the First Supplemental Indenture, dated as of February 20, 2015, the Fourth Supplemental Indenture, dated as of August 21, 2018 and the Seventh Supplemental Indenture, dated as of July 1, 2020 (which, collectively, we refer to as the “GSFC 2008 indenture” in this prospectus supplement). We amended the GSFC 2008 indenture as of July 1, 2020 to apply to all securities issued under the GSFC 2008 indenture on or after July 1, 2020 (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes) unless we elect otherwise, including the notes issued under our Medium-Term Notes, Series F program, and some of the key changes are described below.

Under the GSFC 2008 indenture, as amended or supplemented from time to time, the only events of default are payment defaults that continue for a 30-day grace period and insolvency events as specified therein, unless the applicable prospectus or pricing supplement says otherwise. Any other default under or breach of the GSFC 2008 indenture or any debt securities will not give rise to an event of default, whether after notice, the passage of time or otherwise. As a consequence, if any such other default or breach occurs, neither the trustee nor the holders of any notes will be entitled to accelerate the maturity of any debt securities – that is, they will not be entitled to declare the principal of any notes to be immediately due and payable (other than any notes whose terms specify otherwise, as described in the applicable pricing supplement). See “Risks Relating to Regulatory Resolution Strategies and Long-Term Debt Requirements” and “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default — Securities Issued Under the GSFC 2008 Indenture” in the accompanying prospectus for further details.

In addition, for the purposes of this paragraph and the events of default and remedies described under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” in the accompanying prospectus, the term “series” refers to debt securities with the same CUSIP number. A given CUSIP number is assigned to debt securities that have identical terms, except as to issue date, issue price and, if applicable, the date from which interest begins to accrue. As a result, an event of default for a particular series of notes issued under our Medium-Term Notes, Series F program will not be an event of default for any other series of notes with different terms issued under our Medium-Term Notes, Series F program. See “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” in the accompanying prospectus for further details.

The GSFC 2008 indenture has also been amended to confirm, with respect to notes issued under our Medium-Term Notes, Series F program, (i) that we may sell or transfer our assets substantially as an entirety, in one or more transactions, to one or more entities, provided that our assets and the assets of our direct or indirect subsidiaries in which we own a majority of the combined voting power, taken together, are not sold or transferred substantially as an entirety to one or more entities that are not direct or indirect subsidiaries of The Goldman Sachs Group, Inc. in which it owns a majority of the combined voting power, and (ii) The Goldman Sachs Group, Inc. may sell or transfer its assets, substantially as an entirety, in one or more transactions, to one or more entities, provided that the assets of The Goldman Sachs Group, Inc. and its direct or indirect subsidiaries in which it owns a majority of the combined voting power, taken together, are not sold or transferred substantially as an entirety to one or more entities that are not such subsidiaries. See “Risks Relating to Regulatory Resolution Strategies and Long-Term Debt Requirements — Holders of our senior debt securities issued on or after July 1, 2020 under the 2008 GSFC indenture (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes) and holders of our subordinated debt securities under the subordinated debt indenture could be at greater risk for being structurally subordinated if we sell or transfer our assets substantially as an entirety to one or more of Group Inc.’s subsidiaries or Group Inc. sells or transfers its assets substantially as an entirety to one or more of its subsidiaries.” in the accompanying prospectus for further details.

The GSFC 2008 indenture is a contract among us, The Goldman Sachs Group, Inc. and The Bank of New York Mellon, which acts as trustee. The trustee has two main roles:

- First, the trustee can enforce your rights against us or The Goldman Sachs Group, Inc. if we or The Goldman Sachs Group, Inc. default. There are limitations on the extent to which the trustee acts on your behalf, which we describe under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” in the accompanying prospectus; and
- Second, the trustee performs administrative duties for us, such as sending you interest payments and notices.

We May Issue Other Series of Debt Securities

The GSFC 2008 indenture permits us to issue, from time to time, different series of debt securities and, within each different series of debt securities, different debt securities. The Series F medium-term notes will be a single, distinct series of debt securities. We may, however, issue notes in such amounts, at such times and on such terms as we wish. The notes may differ from one another, and from other series, in their terms.

When we refer to the “notes”, the “Series F medium-term notes” or “these notes”, we mean the notes issued under our Medium-Term Notes, Series F program. When we refer to a “series” of debt securities, we mean a series, such as the notes, issued under the GSFC 2008 indenture. In the limited context of events of default and remedies described under “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” in the accompanying prospectus, the term “series” refers to debt securities with the same CUSIP number.

Amounts That We May Issue

The GSFC 2008 indenture does not limit the aggregate amount of debt securities that we may issue. Nor does it limit the number of series or notes or the aggregate principal amount of any particular series or notes that we may issue. Also, if we issue notes having the same terms in a particular offering, we may “reopen” that offering at any later time and offer additional notes having the same CUSIP number, stated maturity, interest payment dates, if any, and other terms, except for the date of issuance and issue price.

We may issue Series F medium-term notes at any time, without your consent and without notifying you.

Our affiliates may use this prospectus supplement to resell notes in market-making transactions from time to time, including both notes that we have issued before the date of this prospectus supplement and notes that we have not yet issued. We describe these transactions under “Supplemental Plan of Distribution” below.

The GSFC 2008 indenture and the notes do not limit our ability to incur other indebtedness or to issue other securities from time to time. Also, we are not subject to financial or similar restrictions by the terms of the notes or the GSFC 2008 indenture, except as described under “Description of Debt Securities We May Offer — Restriction on Liens” in the accompanying prospectus.

How the Notes Rank Against Other Debt

The Series F medium-term notes will not be secured by any of our property or assets or property or assets of The Goldman Sachs Group, Inc. or its subsidiaries. Thus, by owning notes, you are one of our unsecured creditors.

The notes will not be subordinated to any of our other debt obligations. This means that, in a bankruptcy or liquidation proceeding against us, the notes would rank equally in right of payment with all our other unsecured and unsubordinated debt.

The guarantee of the notes by the Goldman Sachs Group Inc. will not be subordinated to any other debt or guarantee obligations of The Goldman Sachs Group, Inc. This means that, in a bankruptcy or liquidation proceeding against The Goldman Sachs Group, Inc., the guarantees would rank equally in right of payment with all other unsecured and unsubordinated debt or guarantees of The Goldman Sachs Group, Inc. See “Description of Debt Securities We May Offer — Guarantee by The Goldman Sachs Group, Inc.” in the accompanying prospectus for a brief description of the guarantee by The Goldman Sachs Group, Inc.

An investment in the notes involves risks because The Goldman Sachs Group, Inc., the guarantor of the notes, is a holding company and because some of its subsidiaries, including from time to time some of

its principal operating subsidiaries, are partnerships in which The Goldman Sachs Group, Inc. is the sole limited partner. We summarize these risks under “Prospectus Summary — The Goldman Sachs Group, Inc. Is a Holding Company” in the accompanying prospectus.

The GSFC 2008 Indenture

The GSFC 2008 indenture and its associated documents, including your notes, contain the full legal text of the matters described in this section and your pricing supplement. The GSFC 2008 indenture and the notes are governed by New York law. A copy of the GSFC 2008 indenture has been previously filed with the SEC as part of the registration statement relating to the notes. See “Available Information” in the accompanying prospectus for information on how to obtain a copy.

Investors should carefully read the description of the terms and provisions of our debt securities and the GSFC 2008 indenture under “Description of Debt Securities We May Offer” in the accompanying prospectus. That section, together with this prospectus supplement and your pricing supplement, summarizes all the material terms of the GSFC 2008 indenture and your notes. They do not, however, describe every aspect of the GSFC 2008 indenture and your notes. For example, in this section entitled “Description of Notes We May Offer”, the accompanying prospectus and your pricing supplement, we use terms that have been given special meaning in the GSFC 2008 indenture, but we describe the meaning of only the more important of those terms in this prospectus supplement.

Features Common to All Notes

Currency of Notes

Amounts that become due and payable on the notes in cash will be payable in a currency, composite currency, basket of currencies or currency unit or units specified in your pricing supplement. We refer to this currency, composite currency, basket of currencies or currency unit or units as a “specified currency”. The specified currency for the notes will be U.S. dollars, unless your pricing supplement specifies otherwise. Some notes may have different specified currencies for principal and interest. You will have to pay for the notes by delivering the requisite amount of the specified currency for the principal to GS&Co. or another firm that we name in your pricing supplement, unless other arrangements have been made between you and us or you and GS&Co. We will make payments on the notes in the specified currency, except as described in the accompanying prospectus under “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities”. Before you purchase any notes payable in a non-U.S. dollar currency, composite currency, basket of currencies or currency unit or units, as described in your pricing supplement, you should read carefully the section entitled “Considerations Relating to Securities Denominated or Payable in or Linked to a Non-U.S. Dollar Currency” in the accompanying prospectus.

Types of Notes

We may issue any of the three types of notes described below and in the accompanying prospectus under “Description of Debt Securities We May Offer — Types of Debt Securities”. Notes may have elements of each of the three types of notes described below and in the accompanying prospectus under “Description of Debt Securities We May Offer — Types of Debt Securities”. For example, notes may bear interest at a fixed rate for some periods and at a floating rate in others. Similarly, notes may provide for a payment of principal at maturity linked to an index and also bear interest at a fixed or floating rate.

- ***Fixed Rate Notes.*** Notes of this type will bear interest at a fixed rate described in your pricing supplement. This type includes zero coupon notes, which bear no interest and are instead issued at a price lower than the principal amount. See “— Original Issue Discount Notes” below and “Description of Debt Securities We May Offer — Types of Debt Securities — Original Issue Discount Notes” in the accompanying prospectus for more information about original issue discount notes.

Interest due on each interest payment date and at maturity will be calculated as described in the accompanying prospectus under “Description of Debt Securities We May Offer — Calculations of Interest on Debt Securities” unless otherwise specified in your pricing supplement. We will pay interest on each interest payment date (as it may be adjusted due to the applicable business day convention) and at maturity as described in the accompanying prospectus under “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities”.

- **Floating Rate Notes.** Notes of this type will bear interest at rates that are determined by reference to an interest rate formula. In some cases, the rates may also be adjusted by adding or subtracting a spread or multiplying by a spread multiplier and may be subject to a minimum rate or a maximum rate. The various interest rate formulas and these other features are described in the accompanying prospectus under “Description of Debt Securities We May Offer — Calculations of Interest on Debt Securities — Floating Rate Debt Securities”. If your notes are floating rate notes, the formula and any adjustments that apply to the interest rate will be specified in your pricing supplement.

Interest due on each interest payment date (as it may be adjusted due to the applicable business day convention) and at maturity will be calculated as described in the accompanying prospectus under “Description of Debt Securities We May Offer — Calculations of Interest on Debt Securities”, unless otherwise specified in your pricing supplement. We will pay interest on each interest payment date and at maturity as described in the accompanying prospectus under “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities”.

- **Indexed Notes.** Notes of this type provide that the principal amount payable at their maturity, and/or the amount of interest payable on an interest payment date, will be determined by reference to:
 - securities of one or more issuers;
 - one or more currencies;
 - one or more commodities;
 - one or more indices;
 - any other financial, economic or other measure or instrument, including the occurrence or non-occurrence of any event or circumstance; and/or
 - one or more baskets of the items described above.

If you are a holder of indexed notes, you may receive an amount at maturity (including upon acceleration following an event of default) that is greater than or less than the face amount of your notes depending upon the formula used to determine the amount payable and the value of the applicable index at maturity. The value of the applicable index will fluctuate over time.

An indexed note may bear interest at a fixed or floating rate, if specified in your pricing supplement. Unless otherwise indicated in your pricing supplement, indexed notes that bear interest at a fixed rate will bear interest as described in the accompanying prospectus under “Description of Debt Securities We May Offer — Types of Debt Securities — Fixed Rate Debt Securities” and indexed notes that bear interest at a floating rate will bear interest as described in the accompanying prospectus under “Description of Debt Securities We May Offer — Types of Debt Securities — Floating Rate Debt Securities”.

Unless otherwise specified in your pricing supplement, any indexed notes that we issue will be cash settled only.

If you purchase indexed notes, your pricing supplement will include information about the relevant index, about how amounts that are to become payable will be determined by reference to the price or value of that index and about the terms on which the notes may be settled. We have initially appointed GS&Co. as our calculation agent for any indexed notes. The calculation agent may exercise significant discretion in calculating amounts payable with respect to the indexed notes. We may specify a different calculation agent in your pricing supplement. See “Considerations Relating to Indexed Securities” in the accompanying prospectus for more information about risks of investing in notes of this type.

Original Issue Discount Notes

Fixed rate notes, floating rate notes or indexed notes may be original issue discount notes. Notes of this type are issued at a price lower than their principal amount and may provide that, upon redemption or acceleration of their maturity, an amount less than their principal amount may be payable. Original issue discount notes may be zero coupon notes. Notes issued at a discount to their principal may, for U.S. federal income tax purposes, be considered original issue discount notes, regardless of the amount payable upon redemption or acceleration of maturity. See “United States Taxation — Taxation of Debt Securities — United States Holders — Original Issue Discount” in the accompanying prospectus for a brief description of the U.S. federal income tax consequences of owning original issue discount notes.

Information in the Pricing Supplement

Your pricing supplement will describe one or more of the following terms of your notes:

- the stated maturity;
- the specified currency or currencies for principal and interest, if not U.S. dollars;
- the denomination of your notes;
- the price at which we originally issue your notes, expressed as a percentage of the principal amount, and the original issue date;
- whether your notes are fixed rate notes, floating rate notes or indexed notes;
- whether your notes are represented by a global note or a master global note;
- if your notes are fixed rate notes, the annual rate at which your notes will bear interest, if any, the interest payment dates, the business day convention and, if the interest payable will be calculated using a day count convention other than 30/360 (ISDA) (as described under “Description of Debt Securities We May Offer — Calculations of Interest on Debt Securities” in the accompanying prospectus), the day count convention;
- if your notes are floating rate notes, the interest rate basis, which may be one of the base rates as described in the accompanying prospectus under “Description of Debt Securities We May Offer — Calculations of Interest on Debt Securities — Floating Rate Debt Securities” or any other rate as specified in your pricing supplement; any applicable index currency or index maturity, spread or spread multiplier or initial base rate, maximum rate or minimum rate; if the interest rate basis for your notes is the CMT rate, the designated CMT Refinitiv page; if there is more than one source or variation for your interest rate, which source or variation applies to your notes; the business day convention; and the interest reset, determination, calculation and payment dates, all of which are described in the accompanying prospectus under “Description of Debt Securities We May Offer — Calculations of Interest on Debt Securities — Floating Rate Debt Securities”;

- if your notes are indexed notes, the principal amount, if any, we will pay you at maturity, the amount of interest, if any, we will pay you on an interest payment date or the formula we will use to calculate these amounts, if any, and whether your notes will be exchangeable for or payable in cash, securities of an issuer other than The Goldman Sachs Group, Inc. or other property;
- if your notes are original issue discount notes, the yield to maturity;
- if applicable, the circumstances under which your notes may be redeemed at our option or repaid at the holder's option before the stated maturity, including any redemption commencement date, repayment date(s), redemption price(s) and redemption period(s), all of which we describe under "Description of Debt Securities We May Offer — Redemption and Repayment" in the accompanying prospectus;
- if we choose to pay additional amounts on any notes held by a person who is not a United States person for tax purposes, the provisions relating to the circumstances under which we will do so and under which we can redeem your notes if we have to pay additional amounts;
- the depository for your notes, if other than DTC, and any circumstances under which the holder may request notes in non-global form, if we choose not to issue your notes in book-entry form only; and
- any terms of guarantee of your notes by The Goldman Sachs Group, Inc. that are different from or in addition to the description under "Description of Debt Securities We May Offer — Guarantee by The Goldman Sachs Group, Inc." in the accompanying prospectus; and
- any other terms of your notes, which could be different from those described in this prospectus supplement and the accompanying prospectus.

Market-Making Transactions. If you purchase your notes in a market-making transaction, you will receive information about the price you pay and your trade and settlement dates in a separate confirmation of sale. A market-making transaction is one in which GS&Co. or another of our affiliates resells notes that it has previously acquired from another holder. A market-making transaction in a particular note occurs after the original sale of the note. See "Plan of Distribution" in the accompanying prospectus and "Supplemental Plan of Distribution" below.

Form, Denomination and Legal Ownership of Notes

Your notes will be issued in registered form, without interest coupons, in any authorized denominations. Unless otherwise specified in your pricing supplement, the authorized denominations will be \$1,000 and integral multiples of \$1,000 in excess thereof.

Your notes will be issued in book-entry form and represented by a global note or a master global note. You should read the section "Legal Ownership and Book-Entry Issuance" in the accompanying prospectus for information about this type of arrangement and your rights under this type of arrangement.

Interest Rates

This subsection describes the different kinds of interest rates that may apply to your notes, if they bear interest, as specified in your pricing supplement.

Fixed Rate Notes

Fixed rate notes will bear interest at a fixed rate described in your pricing supplement. This type includes zero coupon notes, which bear no interest and are instead issued at a price lower than the principal

amount. Interest due on each interest payment date (as it may be adjusted due to the applicable business day convention) and at maturity will be calculated using the 30/360 (ISDA) day count convention and the following unadjusted business day convention as described in the accompanying prospectus under “Description of Debt Securities We May Offer — Calculations of Interest on Debt Securities”, in each case unless otherwise specified in your pricing supplement. For fixed rate notes that bear interest, we will pay interest as described in the accompanying prospectus under “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities”.

Floating Rate Notes

For floating rate notes, interest will accrue, and we will compute and pay interest, as described in the accompanying prospectus under “Description of Debt Securities We May Offer — Types of Debt Securities — Floating Rate Debt Securities”, “— Calculations of Interest on Debt Securities” and “— Payment Mechanics for Debt Securities” unless otherwise specified in your pricing supplement.

Descriptions of interest rates that were previously included in the prospectus supplement are now included in “Description of Debt Securities We May Offer — Calculations of Interest on Debt Securities — Floating Rate Debt Securities” in the accompanying prospectus.

CONSIDERATIONS RELATING TO INDEXED NOTES

We use the term “indexed notes” to mean any of the notes described in this prospectus supplement whose value is linked to an underlying asset or index or another property (including one or more securities or indices of securities). Indexed notes may present a high level of risk, and investors in certain indexed notes may lose their entire investment. In addition, the treatment of indexed notes for U.S. federal income tax purposes is often unclear due to the absence of any authority specifically addressing the issues presented by any particular indexed note. Thus, if you propose to invest in indexed notes, you should independently evaluate the federal income tax consequences of purchasing an indexed note that apply in your particular circumstances. You should also read “United States Taxation” below for a discussion of U.S. tax matters.

Investors in Indexed Notes Could Lose Their Investment

The amount of principal and/or interest payable on an indexed note will be determined by reference to the price, value or level of one or more securities, currencies, commodities or other properties, any other financial, economic or other measure or instrument, including the occurrence or non-occurrence of any event or circumstance, one or more indices and/or one or more baskets of any of these items. We refer to each of these as an “index”. The direction and magnitude of the change in the price, value or level of the relevant index will determine the amount of principal and/or interest payable on an indexed note. The terms of a particular indexed note may or may not include a fixed return of a percentage of the principal amount at maturity or a minimum interest rate. Thus, if you purchase an indexed note that does not provide a return of 100% of the principal or other amount you invest, you may lose all or a portion of the principal or other amount you invest and may receive no interest on your investment. In addition, even if you purchase an indexed note the terms of which provide for a return of 100% of the principal or other amount you invest, you are still subject to our credit risk, as issuer, and the credit risk of The Goldman Sachs Group, Inc., as guarantor.

The Return on Indexed Notes May Be Below the Return on Similar Securities

Depending on the terms of an indexed note, as specified in the applicable pricing supplement, you may not receive any periodic interest payments or receive only very low payments on such indexed note. As a result, the overall return on such indexed note may be less than the amount you would have earned by investing the principal or other amount you invest in such indexed note in a non-indexed debt security that bears interest at a prevailing market fixed or floating rate.

The Issuer of a Security or Currency That Serves as an Index Could Take Actions That May Adversely Affect an Indexed Note

The issuer of a security that serves as an index or part of an index for an indexed note will have no involvement in the offer and sale of the indexed note and no obligations to the holder of the indexed note. The issuer may take actions, such as a merger or sale of assets, without regard to the interests of the holder. Any of these actions could adversely affect the value of a note indexed to that security or to an index of which that security is a component.

If the index for an indexed note includes a non-U.S. dollar currency or other asset denominated in a non-U.S. dollar currency, the government that issues that currency will also have no involvement in the offer and sale of the indexed note and no obligations to the holder of the indexed note. That government may take actions that could adversely affect the value of the note. See “Considerations Relating to Securities Denominated or Payable in or Linked to a Non-U.S. Dollar Currency — Government Policy Can Adversely Affect Foreign Currency Exchange Rates and an Investment in a Non-U.S. Dollar Security” in the accompanying prospectus for more information about these kinds of government actions.

An Indexed Note May Be Linked to a Volatile Index, Which May Adversely Affect Your Investment

Some indices are highly volatile, which means that their value may change significantly, up or down, over a short period of time. It is impossible to predict the future performance of an index based on its historical performance. The amount of principal or interest that can be expected to become payable on an indexed note may vary substantially from time to time. Because the amounts payable with respect to an indexed note are generally calculated based on the price, value or level of the relevant index on a specified date or over a limited period of time, volatility in the index increases the risk that the return on the indexed note may be adversely affected by a fluctuation in the level of the relevant index.

The volatility of an index may be affected by financial, political, military or economic events, including governmental actions, or by the activities of participants in the relevant markets. Any of these events or activities could adversely affect the value of an indexed note. In the case of currencies, see “Considerations Relating to Securities Denominated or Payable in or Linked to a Non-U.S. Dollar Currency — Changes in Currency Exchange Rates Can Be Volatile and Unpredictable” in the accompanying prospectus.

An Index to Which a Note Is Linked Could Be Changed or Become Unavailable

Some indices compiled by us or our affiliates or third parties may consist of or refer to several or many different securities, commodities or currencies or other instruments or measures. The index sponsor of such an index typically reserves the right to alter the composition of the index and the manner in which the value or level of the index is calculated. Changes to the composition of an index may result in a decrease in the value of or return on an indexed note that is linked to such index. The indices for our indexed notes may include published indices of this kind or customized indices developed by us or our affiliates in connection with particular issues of indexed notes.

A published index may become unavailable, or a customized index may become impossible to calculate in the normal manner, due to events such as war, natural disasters, cessation of publication of the index or a suspension or disruption of trading in one or more securities, commodities or currencies or other instruments or measures on which the index is based. If an index becomes unavailable or impossible to calculate in the normal manner, the terms of a particular indexed note may allow us to delay determining the amount payable as principal or interest on an indexed note, or we may use an alternative method to determine the value of the unavailable index. Alternative methods of valuation are generally intended to produce a value similar to the value resulting from reference to the relevant index. However, it is unlikely that any alternative method of valuation we use will produce a value identical to the value that the actual index would produce. If we use an alternative method of valuation for a note linked to an index of this kind, the value of the note, or the rate of return on it, may be lower than it otherwise would be.

Some indexed notes are linked to indices that are not commonly used or that have been developed only recently. The lack of a trading history may make it difficult to anticipate the volatility or other risks associated with an indexed note of this kind. In addition, trading in these indices or their underlying stocks, commodities or currencies or other instruments or measures, or options or futures contracts on these stocks, commodities or currencies or other instruments or measures, may be limited, which could increase their volatility and decrease the value of the related indexed notes or the rates of return on them.

We May Engage in Hedging Activities that Could Adversely Affect an Indexed Note

In order to hedge an exposure on a particular indexed note, we may, directly or through our affiliates, enter into transactions involving the securities, commodities or currencies or other instruments or measures that underlie the index for that note, or derivative instruments, such as swaps, options or futures, on the index or any of its component items. By

engaging in transactions of this kind, we could adversely affect the value of an indexed note. It is possible that we could achieve substantial returns from our hedging transactions while the value of the indexed note may decline.

Information About an Index or Indices May Not Be Indicative of Future Performance

If we issue an indexed note, we may include historical information about the relevant index or indices in the applicable prospectus supplement. Any information about indices that we may provide will be furnished as a matter of information only, and you should not regard the information as indicative of the range of, or trends in, fluctuations in the relevant index or indices that may occur in the future.

We May Have Conflicts of Interest Regarding an Indexed Note

GS&Co. and our other affiliates may have conflicts of interest with respect to some indexed notes. GS&Co. and our other affiliates may engage in trading, including trading for hedging purposes, for their own accounts or for other accounts under their management, in indexed notes and in the securities, commodities or currencies or other instruments or measures on which the index is based or in other derivative instruments related to the index or its component items. These trading activities could adversely affect the value of indexed notes. We and our affiliates may also issue or underwrite securities or derivative instruments that are linked to the same index as one or more indexed notes. By introducing competing products into the marketplace in this manner, we could adversely affect the value of an indexed note.

GS&Co. or another of our affiliates may serve as calculation agent for the indexed notes and may have considerable discretion in calculating the amounts payable in respect of the notes. To the extent that GS&Co. or another of our affiliates calculates or compiles a particular index, it may also have considerable discretion in performing the calculation or compilation of the index.

Exercising discretion in this manner could adversely affect the value of an indexed note based on the index or the rate of return on the note.

UNITED STATES TAXATION

Investors should read carefully the description of material United States federal income tax consequences of owning the debt securities under “United States Taxation” in the accompanying prospectus. Unless otherwise specified in the applicable pricing supplement, it is the opinion of Sidley Austin LLP, United States tax counsel to GS Finance Corp. and The Goldman Sachs Group, Inc., that CMS rate notes, CMT rate notes, federal funds rate notes, SOFR notes and treasury rate notes generally will be treated as variable rate debt securities under the rules described under “United States Taxation —Taxation of Debt Securities — United States Holders — Variable Rate Debt Securities” in the accompanying prospectus.

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 include: 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 non-exempt prohibited transaction under ERISA or the Code (or, with respect to a governmental plan, under any similar applicable law or regulation), and (c) neither The Goldman Sachs Group, Inc. nor any of its affiliates is a “fiduciary” (within the meaning of Section 3(21) of ERISA) or, with respect to a governmental plan, under any similar applicable law or regulation) with respect to the purchaser or holder in connection with such person’s acquisition, disposition or holding of the notes, or as a result of any exercise by The Goldman Sachs Group, Inc. or any of its affiliates of any rights in connection with the notes, and neither The Goldman Sachs Group, Inc. nor any of its affiliates has provided investment advice in connection with such person’s acquisition, disposition or holding of the notes.

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

SUPPLEMENTAL PLAN OF DISTRIBUTION

We, The Goldman Sachs Group, Inc., as the guarantor, and GS&Co., as the agent, have entered into a distribution agreement, as amended, supplemented, or amended and restated, from time to time, with respect to the notes (the "Distribution Agreement"). Subject to certain conditions, the agent has agreed to use its reasonable efforts to solicit purchases of the notes. We have the right to accept offers to purchase notes and may reject any proposed purchase of the notes. The agent may also reject any offer to purchase notes. We will pay the agent a commission on any notes sold through the agent. The commission we will pay to the agent will range from 0.050% to 0.900% of the principal amount of the notes, depending on the stated maturity of the notes as specified in your pricing supplement.

We may also sell notes to the agent who will purchase the notes as principal for its own account. In that case, the agent will purchase the notes at a price equal to the issue price specified in your pricing supplement, less a discount. The discount will equal the applicable commission on an agency sale of notes with the same stated maturity.

The agent may resell any notes it purchases as principal to other brokers or dealers at a discount, which may include all or part of the discount the agent received from us. If all the notes are not sold at the initial offering price, the agent may change the offering price and the other selling terms.

We may also sell notes directly to investors. We will not pay commissions on notes we sell directly.

The agent, whether acting as agent or principal, may be deemed to be an "underwriter" within the meaning of the Securities Act of 1933 (the "Securities Act"). We and The Goldman Sachs Group, Inc. have agreed to jointly and severally indemnify the agent against certain liabilities, including liabilities under the Securities Act.

If the agent sells notes to dealers who resell to investors and the agent pays the dealers all or part of the discount or commission it receives from us, those dealers may also be deemed to be "underwriters" within the meaning of the Securities Act.

The purchase price of the notes will be required to be paid in immediately available funds in New York City.

We may appoint agents, other than or in addition to GS&Co., with respect to the notes. Any other agents will be named in your pricing supplement and those agents will enter into the Distribution Agreement. The other agents may be our affiliates or customers or affiliates or customers of The Goldman Sachs Group, Inc. and may engage in transactions with and perform services for us or The Goldman Sachs Group, Inc. in the ordinary course of business. GS&Co. may resell notes to or through another of our affiliates, as selling agent.

The notes are a new issue of securities, and there will be no established trading market for any note before its original issue date. We do not plan to list the notes on a securities exchange or quotation system unless otherwise specified in your pricing supplement. 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 nor any other agent named in your pricing supplement 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.

This prospectus supplement may be used by GS&Co. or any of our other affiliates in connection with offers and sales of the notes in market-making transactions. Information about the trade and settlement

dates, as well as the purchase price, for a market-making transaction will be provided to the purchaser in a separate confirmation of sale.

Unless we, The Goldman Sachs Group, Inc. or an agent informs you in your confirmation of sale that your notes are being purchased in the original offering and sale, you may assume that you are purchasing your notes in a market-making transaction.

We describe market-making transactions and other matters relating to the distribution of the notes in the accompanying prospectus under "Plan of Distribution".

VALIDITY OF THE NOTES AND GUARANTEES

The validity of the notes, including the guarantees thereof, that may be issued after the date of this prospectus supplement has been passed upon for GS Finance Corp. and The Goldman Sachs Group, Inc. by Sidley Austin LLP and Davis Polk & Wardwell LLP. The opinions of Sidley Austin LLP and Davis Polk & Wardwell LLP were based on assumptions about future actions required to be taken by GS Finance Corp., The Goldman Sachs Group, Inc. and the trustee in connection with the issuance and sale of the notes, about the specific terms of the notes and about other matters that may affect the validity of the notes but which could not be ascertained on the date of those opinions. If specified in the applicable pricing supplement, the validity of any particular notes, including the guarantees thereof, that may be issued after the date of this prospectus supplement will be passed upon for GS Finance Corp. and The Goldman Sachs Group, Inc. by Sidley Austin LLP, New York, New York or by Davis Polk & Wardwell LLP, New York, New York.

Each of Sidley Austin LLP and Davis Polk & Wardwell LLP has in the past represented and continues to represent GS Finance Corp. and Goldman Sachs on a regular basis and in a variety of matters. Sidley Austin LLP and Davis Polk & Wardwell LLP also performed services for The Goldman Sachs Group, Inc. in connection with the notes we may issue under our Medium-Term Notes, Series F program.

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 and the accompanying prospectus or in any free writing prospectuses we have prepared. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may provide. This prospectus supplement and the accompanying prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus supplement and the accompanying prospectus is current only as of the date of such documents.

TABLE OF CONTENTS

Prospectus Supplement

	<u>Page</u>
Use of Proceeds	S-2
Description of Notes We May Offer	S-3
Considerations Relating to Indexed Notes	S-11
United States Taxation	S-14
Employee Retirement Income Security Act	S-15
Supplemental Plan of Distribution	S-16
Validity of the Notes and Guarantees	S-18

GS Finance Corp.

Medium-Term Notes, Series F

guaranteed as described
herein by

**The Goldman Sachs
Group, Inc.**



Goldman Sachs & Co. LLC



\$268,236,207,754
GS Finance Corp.
The Goldman Sachs Group, Inc.

Debt Securities
Warrants
Units
of
GS Finance Corp.
guaranteed as described herein by
The Goldman Sachs Group, Inc.

GS Finance Corp. from time to time may offer to sell debt securities and warrants, as well as units comprised of these securities of GS Finance Corp. or securities of The Goldman Sachs Group, Inc. The securities of GS Finance Corp. offered from time to time hereunder shall be guaranteed as described herein by The Goldman Sachs Group, Inc. GS Finance Corp. is a wholly owned subsidiary of The Goldman Sachs Group, Inc. The common stock of The Goldman Sachs Group, Inc. is listed on the New York Stock Exchange and trades under the ticker symbol "GS".

\$268,236,207,754 of securities have been registered on our registration statement, filed on Form S-3. The aggregate amount may be used by The Goldman Sachs Group, Inc., GS Finance Corp., Goldman Sachs Capital VI and Goldman Sachs Capital VII to offer securities pursuant to this prospectus or any of the other prospectuses contained in the registration statement.

GS Finance Corp. may offer and sell these securities to or through one or more underwriters, dealers and agents, including the firm named below, or directly to purchasers, on a continuous or delayed basis.

This prospectus describes some of the general terms that may apply to these securities and the general manner in which they may be offered. The specific terms of any securities to be offered, and the specific manner in which they may be offered, will be described in the applicable prospectus supplement to this prospectus.

These securities 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.

Neither the U.S. 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.

GS Finance Corp. may use this prospectus in the initial sale of these securities. In addition, Goldman Sachs & Co. LLC or any other affiliate of GS Finance Corp. may use this prospectus in a market-making transaction in any of these or similar securities 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.***

Goldman Sachs & Co. LLC

Prospectus dated February 14, 2025.

AVAILABLE INFORMATION

The Goldman Sachs Group, Inc. is required to file annual, quarterly and current reports, proxy statements and other information with the U.S. Securities and Exchange Commission (the “SEC”). Our filings with the SEC are available to the public through the SEC’s Internet site at <http://www.sec.gov>.

We have filed a registration statement on Form S-3 with the SEC relating to the securities covered by this prospectus. This prospectus is a part of the registration statement and does not contain all of the information in the registration statement. Whenever a reference is made in this prospectus to a contract or other document of The Goldman Sachs Group, Inc., please be aware that the reference is only a summary and that you should refer to the exhibits that are a part of the registration statement for a copy of the applicable contract or other document. You may review a copy of the registration statement through the SEC’s Internet site.

The SEC’s rules allow us to “incorporate by reference” information into this prospectus. This means that we can disclose important information to you by referring you to any of the SEC filings referenced in the list below. Any information referred to in this way in this prospectus or the applicable prospectus supplement is considered part of this prospectus from the date we file that document. Any reports filed by us with the SEC after the date of this prospectus and before the date that the offering of securities by means of this prospectus is terminated will automatically update and, where applicable, supersede any information contained in this prospectus or incorporated by reference in this prospectus.

The Goldman Sachs Group, Inc. incorporates by reference into this prospectus the following documents or information filed with the SEC (other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules):

- (1) Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2023, as amended by Amendment No. 1 on [Form 10-K/A](#) filed on February 28, 2024 (File No. 001-14965);
- (2) Quarterly Reports on Form 10-Q for the quarterly periods ended [March 31, 2024](#), [June 30, 2024](#) and [September 30, 2024](#) (File No. 001-14965);
- (3) Current Reports on Form 8-K dated and filed on [January 16, 2024](#) (which is only incorporated by reference to the extent stated therein), dated January 12, 2024 and filed on [January 19, 2024](#), dated and filed on [February 16, 2024](#), dated March 4, 2024 and filed on [March 8, 2024](#), dated April 10, 2024 and filed on [April 12, 2024](#), dated and filed on [April 15, 2024](#) (which is only incorporated by reference to the extent stated therein), dated and filed on [April 16, 2024](#), dated April 18, 2024 and filed on [April 23, 2024](#), dated April 24, 2024 and filed on [April 25, 2024](#), dated and filed on [April 25, 2024](#), dated May 17, 2024 and filed on [May 20, 2024](#), dated and filed on [June 24, 2024](#), dated and filed on [June 28, 2024](#), dated and filed on [July 15, 2024](#) (which is only incorporated by reference to the extent stated therein), dated and filed on [July 23, 2024](#), dated August 28, 2024 and filed on [August 29, 2024](#), dated and filed on [September 19, 2024](#), dated September 23, 2024 and filed on [September 26, 2024](#), dated and filed on [October 15, 2024](#) (which is only incorporated by reference to the extent stated therein), dated and filed on [October 23, 2024](#), dated October 23, 2024 and filed on [October 24, 2024](#), dated and filed on [November 19, 2024](#), dated and filed on [January 15, 2025](#) (which is only incorporated by reference to the extent stated therein), dated January 14, 2025 and filed on [January 17, 2025](#), dated January 21, 2025 and filed on [January 24, 2025](#), dated and filed on [January 28, 2025](#) and dated and filed on [January 31, 2025](#) (File No. 001-14965);
- (4) All documents filed by The Goldman Sachs Group, Inc. under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 (the “Exchange Act”) on or after the date of this prospectus and before the termination of the offering of securities under this prospectus; and

- (5) Solely with regard to the securities covered by this prospectus that were initially offered and sold under previously filed registration statements of GS Finance Corp. and that from time to time may be reoffered and resold in market-making transactions under this prospectus, the information in the prospectus supplements relating to those securities that were previously filed by GS Finance Corp. in connection with their initial offer and sale (except to the extent that any such information has been modified or superseded by other information included or incorporated by reference in this prospectus).

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all documents referred to above which have been or may be incorporated by reference into this prospectus excluding exhibits to those documents unless they are specifically incorporated by reference into those documents. You can request those documents from Investor Relations, 200 West Street, New York, New York 10282, telephone (212) 902-0300.

No separate financial statements of GS Finance Corp. are included in this prospectus. The Goldman Sachs Group, Inc. and GS Finance Corp. do not consider that such financial statements would be material to holders of the securities of GS Finance Corp. because GS Finance Corp. has no operating history or independent operations and is not engaged in and does not propose to engage in any activity other than issuing its debt securities, warrants or units and lending the net proceeds therefrom to The Goldman Sachs Group, Inc. and/or its subsidiaries. Furthermore, The Goldman Sachs Group, Inc.'s obligations under the related guarantees provide a full, irrevocable and unconditional guarantee of payments of distributions and other amounts due on the related securities of GS Finance Corp. For a more detailed discussion, see "Description of Debt Securities We May Offer", "Description of Warrants We May Offer" and "Descriptions of Units We May Offer" below. In addition, The Goldman Sachs Group, Inc. does not expect GS Finance Corp. to file reports under the Exchange Act with the SEC.

When we refer to "Goldman Sachs" or the "Firm" in this prospectus, we mean The Goldman Sachs Group, Inc., together with its consolidated subsidiaries and affiliates.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus or incorporated by reference into this prospectus as further described above under "Available Information". This summary does not contain all the information that you should consider before investing in the securities being offered by this prospectus. You should carefully read the entire prospectus, the documents incorporated by reference into this prospectus, the applicable prospectus supplement, if applicable, and the prospectus supplement relating to the securities that you propose to buy, especially any description of investment risks that we may include in the applicable prospectus supplement.

GS Finance Corp.

GS Finance Corp. is a Delaware corporation and a wholly owned subsidiary of The Goldman Sachs Group, Inc., created for the primary purpose of providing Goldman Sachs with financing for its operations by issuing securities to investors and lending the net proceeds therefrom to The Goldman Sachs Group, Inc. and/or its subsidiaries.

The Goldman Sachs Group, Inc.

The Goldman Sachs Group, Inc. is a leading global financial institution that delivers a broad range of financial services to a large and diversified client base that includes corporations, financial institutions, governments and individuals. Founded in 1869, the Firm is headquartered in New York and maintains offices in all major financial centers around the world. The Firm's principal executive offices are located at 200 West Street, New York, New York 10282, telephone (212) 902-1000. The Goldman Sachs Group, Inc. is a bank holding company and a financial holding company regulated by the Board of Governors of the Federal Reserve System (the "Federal Reserve Board"). The Firm's U.S. depository institution subsidiary, Goldman Sachs Bank USA, is a New York State-chartered bank.

The Goldman Sachs Group, Inc. is a Holding Company

Because the assets of The Goldman Sachs Group, Inc. consist principally of interests in the subsidiaries through which The Goldman Sachs Group, Inc. conducts its businesses, its right to participate as an equity holder in any distribution of assets of any of its subsidiaries upon the subsidiary's liquidation or otherwise, and thus the ability of the security holders of GS Finance Corp., as the beneficiaries of the guarantee by The Goldman Sachs Group, Inc., to benefit from the distribution, is junior to creditors of the subsidiary, except to the extent that any claims The Goldman Sachs Group, Inc. may have as a creditor of the subsidiary are recognized. In addition, dividends, loans and advances to The Goldman Sachs Group, Inc. from some of its subsidiaries, including Goldman Sachs & Co. LLC ("GS&Co."), are restricted by net capital requirements under the Securities Exchange Act of 1934 and under rules of securities exchanges and other regulatory bodies. Furthermore, because some of the subsidiaries of The Goldman Sachs Group, Inc., including from time to time some of The Goldman Sachs Group, Inc.'s principal operating subsidiaries, are partnerships in which The Goldman Sachs Group, Inc. is a general partner or the sole limited partner, The Goldman Sachs Group, Inc. may be liable for their obligations. The Goldman Sachs Group, Inc. also guarantees many of the obligations of its subsidiaries other than GS Finance Corp. Any liability The Goldman Sachs Group, Inc. may have for its subsidiaries' obligations could reduce its assets that are available to satisfy its guarantee obligations to the investors in securities of GS Finance Corp.

The Securities We Are Offering

We may offer any of the following securities from time to time:

- debt securities;
- warrants; and
- units, comprised of (i) one or more debt securities or warrants described in this prospectus or (ii) any of the foregoing and debt or equity securities of The Goldman Sachs Group, Inc.

The securities we offer from time to time will be fully and unconditionally guaranteed by The Goldman Sachs Group, Inc.

When we use the term “security” or “securities” in this prospectus, we mean any of the securities we may offer with this prospectus, including the guarantee of The Goldman Sachs Group, Inc., unless the context requires otherwise. This prospectus, including the following summary, describes the general terms that may apply to the securities; the specific terms of any particular securities that we may offer will be described in the applicable prospectus supplement to this prospectus and may differ from the general terms described herein.

Debt Securities

The debt securities may be senior or subordinated in right of payment. For any particular debt securities we offer, the applicable prospectus supplement will describe the title and series of the debt securities, the aggregate principal amount and the original issue price; the ranking, whether senior or subordinated; the stated maturity; the redemption terms, if any; the rate or manner of calculating the rate and the payment dates for interest, if any; the amount or manner of calculating the amount payable at maturity; and any other specific terms. The senior debt securities will be issued under either of the two senior debt indentures (as described in “Description of Debt Securities We May Offer — The Senior Debt Indentures and the Subordinated Debt Indenture”) among us, The Goldman Sachs Group, Inc., as guarantor, and The Bank of New York Mellon, as trustee, and the subordinated debt securities will be issued under a subordinated debt indenture (as defined herein) to be entered into at a later date among us, The Goldman Sachs Group, Inc., as guarantor, and a bank, trust company or other financial institution, as trustee.

The payment of principal of, and any interest and premium on, the debt securities we may offer will be fully and unconditionally guaranteed by The Goldman Sachs Group, Inc. The guarantee will remain in effect until the entire principal of, and interest and premium, if any, on the debt securities has been paid in full or discharged in accordance with the provisions of the relevant indenture, or otherwise fully defeased by us or by The Goldman Sachs Group, Inc. The guarantee of senior debt securities of GS Finance Corp. will rank equally in right of payment with all senior indebtedness of The Goldman Sachs Group, Inc., whereas the guarantee of subordinated debt securities of GS Finance Corp. will be subordinate and junior in right of payment to all senior indebtedness of The Goldman Sachs Group, Inc.

Warrants

We may offer warrants whose cash value is determined by reference to the performance, level or value of one or more of the following:

- securities of one or more issuers, including the common or preferred stock or other securities of The Goldman Sachs Group, Inc. or debt or equity securities of third parties;

- one or more currencies;
- one or more commodities;
- any other financial, economic or other measure or instrument, including the occurrence or non-occurrence of any event or circumstance;
- one or more indices; and/or
- one or more baskets of the items described above.

For any particular warrants we offer, the applicable prospectus supplement will describe the underlying property; the expiration date; the exercise price or the manner of determining the exercise price; the amount in cash, or the manner of determining the amount in cash, to be paid by you or us upon exercise; and any other specific terms. Unless otherwise specified in the applicable prospectus supplement, the warrants will be issued under a warrant indenture (as defined herein) among us, The Goldman Sachs Group, Inc., as guarantor, and The Bank of New York Mellon, as trustee.

The payment on the warrants we may offer will be fully and unconditionally guaranteed by The Goldman Sachs Group, Inc. The guarantee will remain in effect until the entire payment, if any, on the warrants has been paid in full or discharged in accordance with the provisions of the warrant indenture.

Units

We may offer units, comprised of one or more debt securities or warrants described in this prospectus, as well as debt or equity securities of The Goldman Sachs Group, Inc. For any particular units we offer, the applicable prospectus supplement will describe the particular securities comprising each unit; the terms on which those securities will be separable, if any; whether the holder will pledge property to secure the performance of any obligations the holder may have under the unit; and any other specific terms of the units. We may issue the units under unit agreements between us and one or more unit agents.

The payment of principal of, any interest, premium, dividends, liquidation preference, sinking fund payment or any other applicable payment on our own securities included in the units we may offer will be fully and unconditionally guaranteed by The Goldman Sachs Group, Inc. The guarantee will remain in effect until the entire applicable payment, if any, on our own securities included in the units has been paid in full or discharged in accordance with the provisions of the related debt indenture, warrant indenture or guarantee agreement or otherwise fully defeased by us or by The Goldman Sachs Group, Inc., if applicable.

References to our securities include our units, even though our units may include securities of The Goldman Sachs Group, Inc.

Form of Securities

We will issue the securities in book-entry form through one or more depositories, such as The Depository Trust Company, Euroclear or Clearstream, named in the applicable prospectus supplement. Each sale of a security in book-entry form will settle in immediately available funds through the applicable depository, unless otherwise stated. We will issue the securities only in registered form, without coupons.

Payment Currencies

Amounts payable in respect of the securities, including the original issue price, will be payable in U.S. dollars, unless the applicable prospectus supplement says otherwise.

Listing

If any securities are to be listed or quoted on a securities exchange or quotation system, the applicable prospectus supplement will say so.

Use of Proceeds

We will lend the net proceeds from sales of the securities to The Goldman Sachs Group, Inc. and/or its subsidiaries. Goldman Sachs expects to use the proceeds from such loans to provide additional funds for its operations and for other general corporate purposes.

Manner of Offering

The securities will be offered in connection with their initial issuance or in market-making transactions by our affiliates after initial issuance. Those offered in market-making transactions may be securities that we will not issue until after the date of this prospectus as well as securities that we have previously issued.

When we issue new securities, we may offer them for sale to or through underwriters, dealers and agents, including our affiliates, or directly to purchasers. The applicable prospectus supplement will include any required information about the firms we use and the discounts or commissions we may pay them for their services.

Our affiliates that we refer to above may include, among others, GS&Co., for offers and sales in the United States, and Goldman Sachs International, Goldman Sachs (Asia) L.L.C. and Goldman Sachs (Singapore) Pte., for offers and sales outside the United States.

LIBOR Securities

This prospectus may be used in market-making transaction by our affiliates in connection with securities that were initially issued prior to the date of this prospectus for which one-, three-, six-, or twelve month U.S. dollar LIBOR ("USD LIBOR") serves as the reference rate used in connection with the calculation of the applicable interest or dividends payable in connection with such securities ("USD LIBOR Securities").

On December 16, 2022, the Federal Reserve released the final rule implementing the Adjustable Interest Rate (LIBOR) Act (the "LIBOR Act"), which establishes benchmark replacements for contracts under U.S. law referencing USD LIBOR that lack a fallback to an alternative rate. Under the LIBOR Act and the regulations promulgated thereunder, references to USD LIBOR in any USD LIBOR Security that does not contain an appropriate fallback provision are automatically replaced with references to the Term SOFR Reference Rate for a comparable tenor, as published by CME Group Benchmark Administration, Ltd. (or any successor administrator) ("CME Term SOFR"), plus the statutorily prescribed tenor spread. In instances where a calculation agent has discretion to select an alternative benchmark replacement, the LIBOR Act provides a safe harbor for any person that elects to follow the prescribed alternative reference rate set forth in the LIBOR Act and the regulations promulgated thereunder.

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 any offering of the securities within the meaning of Financial Industry

Regulatory Authority, Inc. (“FINRA”) Rule 5121. Consequently, any offering of the securities will be conducted in compliance with the provisions of Rule 5121. GS&Co. will not be permitted to sell securities in any offering to an account over which it exercises discretionary authority without the prior specific written approval of the account holder.

Risks and Considerations Relating to the Securities

There are a number of risks and considerations that you should take into account prior to investing in the securities. Please read “Risks Relating to Regulatory Resolution Strategies and Long-Term Debt Requirements”, “Considerations Relating to Floating Rate Securities”, “Considerations Relating to Indexed Securities”, “Considerations Relating to Securities Denominated or Payable in or Linked to a Non-U.S. Dollar Currency” and “United States Taxation — Taxation of Debt Securities — Foreign Account Tax Compliance Act (“FATCA”) Withholding” for more information.

For a discussion of important business and financial risks relating to The Goldman Sachs Group, Inc., please see “Risk Factors” in Part I, Item 1A of The Goldman Sachs Group, Inc.’s Annual Report on Form 10-K for the fiscal year ended December 31, 2023, which is incorporated in this prospectus by reference (and in any of The Goldman Sachs Group, Inc.’s annual or quarterly reports for a subsequent fiscal period that are so incorporated).

RISKS RELATING TO REGULATORY RESOLUTION STRATEGIES AND LONG-TERM DEBT REQUIREMENTS

Please note that in this section entitled "Risks Relating to Regulatory Resolution Strategies and Long-Term Debt Requirements", references to "Group Inc." refer only to The Goldman Sachs Group, Inc. and not to its consolidated subsidiaries and references to "we" and "our" refer only to GS Finance Corp. References to our "debt securities", including "fixed rate debt securities", "floating rate debt securities" and "indexed debt securities", are explained below under "Description of Debt Securities We May Offer".

The application of regulatory resolution strategies could increase the risk of loss for holders of our securities in the event of the resolution of Group Inc.

Your ability to recover from Group Inc. the full amount that would otherwise be payable under its guarantee of our securities in a proceeding under the U.S. Bankruptcy Code may be impaired by the exercise by the FDIC of its powers under the "orderly liquidation authority" under Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act"). In addition, the single point of entry strategy described below is intended to impose losses at the top-tier holding company level in the resolution of a global systemically important bank ("G-SIB") such as Group Inc.

Title II of the Dodd-Frank Act created a resolution regime known as the "orderly liquidation authority" to which financial companies, including bank holding companies such as Group Inc., can be subjected. Under the orderly liquidation authority, the FDIC may be appointed as receiver for a financial company for purposes of liquidating the entity if, upon the recommendation of applicable regulators, the Secretary of the Treasury determines, among other things, that the entity is in severe financial distress, that the entity's failure would have serious adverse effects on the U.S. financial system and that resolution under the orderly liquidation authority would avoid or mitigate those effects. Absent such determinations, Group Inc., as a U.S. bank holding company, would remain subject to the U.S. Bankruptcy Code.

If the FDIC is appointed as receiver under the orderly liquidation authority, then the orderly liquidation authority, rather than the U.S. Bankruptcy Code, would determine the powers of the receiver and the rights and obligations of creditors and other parties who have transacted with Group Inc. There are substantial differences between the rights available to creditors in the orderly liquidation authority and in the U.S. Bankruptcy Code, including the right of the FDIC under the orderly liquidation authority to disregard the strict priority of creditor claims in some circumstances (which would otherwise be respected by a bankruptcy court) and the use of an administrative claims procedure to determine creditors' claims (as opposed to the judicial procedure utilized in bankruptcy proceedings). In certain circumstances under the orderly liquidation authority, the FDIC could elevate the priority of claims that it determines necessary to facilitate a smooth and orderly liquidation without the need to obtain creditors' consent or prior court review. In addition, the FDIC has the right to transfer claims to a third party or "bridge" entity under the orderly liquidation authority.

The FDIC has announced that a single point of entry strategy may be a desirable strategy to resolve a large financial institution such as Group Inc. in a manner that would, among other things, impose losses on shareholders, debt holders (including, in our case, holders of our securities, which are guaranteed by Group Inc.) and other creditors of the top-tier holding company (in our case, Group Inc.), while permitting the holding company's subsidiaries to continue to operate. In addition, the Board of Governors of the Federal Reserve System (Federal Reserve Board) has adopted requirements that U.S. G-SIBs, including Group Inc., maintain minimum amounts of long-term debt and total loss-absorbing capacity to facilitate the application of the single point of entry resolution strategy. It is

possible that the application of the single point of entry strategy under the orderly liquidation authority — in which Group Inc. would be the only entity to enter resolution proceedings — would result in greater losses to holders of our securities, which are guaranteed by Group Inc. (including holders of our fixed rate, floating rate and indexed debt securities), than the losses that would result from the application of a bankruptcy proceeding or a different resolution strategy, such as a multiple point of entry resolution strategy for Group Inc. and certain of its material subsidiaries. Assuming Group Inc. entered resolution proceedings and that support from Group Inc. or other available resources to its subsidiaries (other than us) was sufficient to enable those subsidiaries to remain solvent, losses at the subsidiary level (other than us) would be transferred to Group Inc. and ultimately borne by Group Inc.'s security holders, third-party creditors of Group Inc.'s subsidiaries (other than us) would receive full recoveries on their claims, and Group Inc.'s creditors (including holders of our debt securities, which are guaranteed by Group Inc.) could face significant and possibly complete losses. In that case, Group Inc.'s creditors would face losses while the third-party creditors of Group Inc.'s subsidiaries (other than us) would incur no losses because the subsidiaries would continue to operate and would not enter resolution or bankruptcy proceedings. In addition, holders of Group Inc.'s eligible LTD (defined below) and its other creditors (including holders of our debt securities, which are guaranteed by Group Inc.) could face losses ahead of other similarly situated creditors in a resolution under the orderly liquidation authority if the FDIC exercised its right, described above, to disregard the priority of creditor claims.

The orderly liquidation authority also provides the FDIC with authority to cause creditors and shareholders of a financial company (such as Group Inc.) in receivership to bear losses before taxpayers are exposed to such losses, and amounts owed to the U.S. government would generally receive a statutory payment priority over the claims of private creditors, including senior creditors. In addition, under the orderly liquidation authority, claims of creditors (including holders of our securities) could be satisfied through the issuance of equity or other securities in a bridge entity to which Group Inc.'s assets are transferred. If such a securities-for-claims exchange were implemented, there can be no assurance that the value of the securities of the bridge entity would be sufficient to repay or satisfy all or any part of the creditor claims for which the securities were exchanged. While the FDIC has issued regulations to implement the orderly liquidation authority, not all aspects of how the FDIC might exercise this authority are known and additional rulemaking is possible. In addition, certain jurisdictions, including the U.K. and the E.U., have implemented, or are considering, changes to resolution regimes to provide resolution authorities with the ability to recapitalize a failing entity by writing down its unsecured debt or converting its unsecured debt into equity. Such "bail-in" powers are intended to enable the recapitalization of a failing institution by allocating losses to its shareholders and unsecured debtholders. For example, the Bank of England requires a certain amount of intercompany funding that we provide to our material U.K. subsidiaries to contain a contractual trigger to expressly permit the Bank of England to exercise such "bail-in" powers in certain circumstances. If the intercompany funding Group Inc. provides to our subsidiaries is "bailed in," Group Inc.'s claims on its subsidiaries would be subordinated to the claims of the subsidiaries' third-party creditors or written down. U.S. regulators are considering and non-U.S. authorities have adopted requirements that certain subsidiaries of large financial institutions maintain minimum amounts of total loss-absorbing capacity that would pass losses up from the subsidiaries to the top-tier BHC and, ultimately, to security holders of the top-tier holding company in the event of failure.

The application of Group Inc.'s proposed resolution strategy could result in greater losses for Group Inc.'s security holders.

As required by the Dodd-Frank Act and regulations issued by the Federal Reserve Board and the FDIC, Group Inc. is required to provide to the Federal Reserve Board and the FDIC a plan for its rapid and orderly resolution in the event of material financial distress affecting the firm or the failure of Group Inc. In its resolution plan, Group Inc. would be resolved under the U.S. Bankruptcy Code. The strategy described in Group Inc.'s resolution plan is a variant of the single point of entry strategy: Group Inc.

and Goldman Sachs Funding LLC (“Funding IHC”), a wholly-owned, direct subsidiary of Group Inc., would recapitalize and provide liquidity to certain major subsidiaries (which does not include us), including through the forgiveness of intercompany indebtedness, the extension of the maturities of intercompany indebtedness and the extension of additional intercompany loans. If this strategy were successful, creditors of some or all of Group Inc.’s major subsidiaries (which does not include us) would receive full recoveries on their claims, while Group Inc.’s security holders could face significant and possibly complete losses.

To facilitate the execution of its resolution plan, Group Inc. formed Funding IHC. In exchange for an unsecured subordinated funding note and equity interest, Group Inc. transferred certain intercompany receivables and substantially all of its global core liquid assets (“GCLA”) to Funding IHC, and agreed to transfer additional GCLA above prescribed thresholds.

Group Inc. also put in place a Capital and Liquidity Support Agreement (“CLSA”) among Group Inc., Funding IHC and its major subsidiaries (which does not include us). Under the CLSA, Funding IHC has provided Group Inc. with a committed line of credit that allows Group Inc. to draw sufficient funds to meet its cash needs during the ordinary course of business. In addition, if Group Inc.’s financial resources deteriorate so severely that resolution may be imminent, (i) the committed line of credit will automatically terminate and the unsecured subordinated funding note will automatically be forgiven, (ii) all intercompany receivables owed by the major subsidiaries (which does not include us) to Group Inc. will be transferred to Funding IHC or their maturities will be extended to five years, (iii) Group Inc. will be obligated to transfer substantially all of its remaining intercompany receivables and GCLA (other than an amount to fund anticipated bankruptcy expenses) to Funding IHC, and (iv) Funding IHC will be obligated to provide capital and liquidity support to the major subsidiaries (which does not include us). Group Inc.’s and Funding IHC’s obligations under the CLSA are secured pursuant to a related security agreement. Such actions would materially and adversely affect Group Inc.’s liquidity. As a result, during a period of severe stress, Group Inc. might commence bankruptcy proceedings at an earlier time than it otherwise would if the CLSA and related security agreement had not been implemented.

If Group Inc.’s proposed resolution strategy were successful, holders of our debt securities, which are guaranteed by Group Inc., could face significant losses. In that case, holders of our debt securities could face losses while the third-party creditors of Group Inc.’s major subsidiaries (which does not include us) would incur no losses because those subsidiaries would continue to operate and not enter resolution or bankruptcy proceedings. As part of the strategy, Group Inc. could also seek to elevate the priority of its guarantee obligations relating to its major subsidiaries’ (which does not include us) derivatives contracts or transfer them to another entity so that cross-default and early termination rights would be stayed under the International Swaps and Derivatives Association Universal Resolution Stay Protocol or International Swaps and Derivatives Association 2018 U.S. Resolution Stay Protocol, as applicable, which would result in Group Inc.’s other creditors (including holders of our debt securities, which are guaranteed by Group Inc.) incurring losses ahead of the beneficiaries of those guarantee obligations. It is also possible that Group Inc.’s other creditors (including holders of our debt securities, which are guaranteed by Group Inc.) could incur losses ahead of other similarly situated creditors of Group Inc.’s major subsidiaries. If Group Inc.’s preferred resolution strategy were not successful, Group Inc.’s financial condition would be adversely impacted and holders of our debt securities, which are guaranteed by Group Inc., may as a consequence be in a worse position than if the strategy had not been implemented. In all cases, any payments to holders of our debt securities are dependent on our ability to make such payments out of funds provided by Group Inc. and Group Inc.’s ability to make payments on its guarantee and are therefore subject to Group Inc.’s credit risk.

Senior debt securities issued on or after July 1, 2020 (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes) under the 2008 GSFC indenture will provide only limited acceleration and enforcement rights.

We have modified the 2008 GSFC indenture under which our senior debt securities may be issued to provide that, for any such debt securities issued on or after July 1, 2020 (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes), the only events of default will be payment defaults that continue for a 30-day grace period and insolvency events as specified herein, unless the applicable prospectus supplement says otherwise. Any other default under or breach of the indenture or any such securities will not give rise to an event of default, whether after notice, the passage of time or otherwise. As a consequence, if any such other default or breach occurs, neither the trustee nor the holders of any such securities issued on or after July 1, 2020 will be entitled to accelerate the maturity of any securities — that is, they will not be entitled to declare the principal of any securities to be immediately due and payable because of such other default or breach (other than any securities whose terms specify otherwise, as described in the applicable prospectus supplement). These other defaults and breaches would include, among others, any breach of the covenants described below under “— Mergers and Similar Transactions”. In addition, if any such other default or breach occurs, neither the trustee nor the holders of any such securities will be entitled to enforce or seek any remedy under the 2008 GSFC indenture or the securities, except as described below under “— Default, Remedies and Waiver of Default” in respect of certain covenant breaches.

The limitations on events of default, acceleration rights and other remedies described in the prior paragraph do not apply with regard to any securities issued under the 2007 GSFC indenture or to any securities issued prior to July 1, 2020 under the 2008 GSFC indenture or to new issuances or reopenings of previously issued Series E Medium-Term Notes. Therefore, if certain defaults or breaches occur, holders of securities issued before July 1, 2020 or holders of new or reopened Series E Medium-Term Notes may be able to accelerate their securities so that such securities become immediately due and payable while you, as a holder of securities issued on or after July 1, 2020 that are not Series E Medium-Term Notes, may not be able to do so. In such an event, our obligation to repay the accelerated securities in full could adversely affect our ability to make timely payments on your securities thereafter. These limitations on your rights and remedies could adversely affect the market value of your securities, especially during times of financial stress for us or our industry.

Please see “Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default” below for an explanation of the terms “2007 GSFC indenture”, “2008 GSFC indenture”, “event of default” and “covenant breach”, as well as for information regarding acceleration rights and remedies.

Holders of our senior debt securities issued on or after July 1, 2020 under the 2008 GSFC indenture (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes) and holders of our subordinated debt securities under the subordinated debt indenture could be at greater risk for being structurally subordinated if we sell or transfer our assets substantially as an entirety to one or more of the subsidiaries of Group Inc. or Group Inc. sells or transfers its assets substantially as an entirety to one or more of its subsidiaries.

With respect to any securities issued on or after July 1, 2020 under the 2008 GSFC indenture (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes) and any securities issued under the subordinated debt indenture, we may sell or transfer our assets substantially as an entirety, in one or more transactions, to one or more entities, provided that our assets and the assets of our direct or indirect subsidiaries in which we own a

majority of the combined voting power, taken together, are not sold or transferred substantially as an entirety to one or more entities that are not majority-owned subsidiaries of Group Inc., and Group Inc. may sell or transfer its assets, substantially as an entirety, in one or more transactions, to one or more entities, provided that the assets of Group Inc. and its direct or indirect subsidiaries in which it owns a majority of the combined voting power, taken together, are not sold or transferred substantially as an entirety to one or more entities that are not such subsidiaries. If we sell or transfer our assets substantially as an entirety to our subsidiaries, third-party creditors of our subsidiaries would have additional assets from which to recover on their claims while holders of our securities issued on or after July 1, 2020 under the 2008 GSFC indenture (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes) and any securities under the subordinated debt indenture would be structurally subordinated to creditors of our subsidiaries with respect to such assets. If Group Inc. sells or transfers its assets substantially as an entirety to its subsidiaries, third-party creditors of its subsidiaries would have additional assets from which to recover on their claims while holders of our securities issued on or after July 1, 2020 under the 2008 GSFC indenture (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes) and any securities under the subordinated debt indenture would be structurally subordinated to creditors of its subsidiaries with respect to such assets.

Please see “Description of Debt Securities We May Offer — Mergers and Similar Transactions” below for more information.

Holders of our warrants issued under the 2008 GSFC indenture could be at greater risk for being structurally subordinated if we sell or transfer our assets substantially as an entirety to one or more of the subsidiaries of Group Inc. or Group Inc. sells or transfers its assets substantially as an entirety to one or more of its subsidiaries.

With respect to any warrants issued under the 2008 GSFC indenture, we may sell or transfer our assets substantially as an entirety, in one or more transactions, to one or more entities, provided that our assets and the assets of our direct or indirect subsidiaries in which we own a majority of the combined voting power, taken together, are not sold or transferred substantially as an entirety to one or more entities that are not majority-owned subsidiaries of Group Inc., and Group Inc. may sell or transfer its assets, substantially as an entirety, in one or more transactions, to one or more entities, provided that the assets of Group Inc. and its direct or indirect subsidiaries in which it owns a majority of the combined voting power, taken together, are not sold or transferred substantially as an entirety to one or more entities that are not such subsidiaries. If we sell or transfer our assets substantially as an entirety to our subsidiaries, third-party creditors of our subsidiaries would have additional assets from which to recover on their claims while holders of our warrants issued under the 2008 GSFC indenture would be structurally subordinated to creditors of our subsidiaries with respect to such assets. If Group Inc. sells or transfers its assets substantially as an entirety to its subsidiaries, third-party creditors of its subsidiaries would have additional assets from which to recover on their claims while holders of our warrants issued under the 2008 GSFC indenture would be structurally subordinated to creditors of its subsidiaries with respect to such assets.

Please see “Description of Warrants We May Offer — Mergers and Similar Transactions” below for more information.

USE OF PROCEEDS

We will lend the net proceeds from sales of the securities to The Goldman Sachs Group, Inc. and/or its subsidiaries. Goldman Sachs expects to use the proceeds from such loans to provide additional funds for its operations and for other general corporate purposes.

DESCRIPTION OF DEBT SECURITIES WE MAY OFFER

Please note that in this section entitled “Description of Debt Securities We May Offer”, references to “we”, “our” and “us” refer only to GS Finance Corp. and not to The Goldman Sachs Group, Inc., and references to “The Goldman Sachs Group, Inc.” refer only to The Goldman Sachs Group, Inc. and not to its consolidated subsidiaries. Also, in this section, references to “holders” mean those who own debt securities 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 debt securities registered in street name or in debt securities issued in book-entry form through one or more depositaries. Owners of beneficial interests in the debt securities should read the section below entitled “Legal Ownership and Book-Entry Issuance”.

Debt Securities May Be Senior or Subordinated

We may issue from time to time senior or subordinated debt securities. Neither the senior debt securities nor the subordinated debt securities will be secured by any of our property or assets or property or assets of The Goldman Sachs Group, Inc. or its subsidiaries. Thus, by owning a debt security, you are one of our unsecured creditors.

The senior debt securities will constitute part of our senior debt, will be issued under either of the senior debt indentures (as described in “Description of Debt Securities We May Offer — The Senior Debt Indentures and the Subordinated Debt Indenture”), and will rank equally with all of our other unsecured and unsubordinated debt.

The subordinated debt securities will constitute part of our subordinated debt, will be issued under the subordinated debt indenture described below and will be subordinate in right of payment to all of our “senior indebtedness”, as defined in the subordinated debt indenture. The prospectus supplement for any series of subordinated debt securities or the information incorporated in this prospectus by reference will indicate the approximate amount of senior indebtedness outstanding as of the end of our most recent fiscal quarter.

The two senior debt indentures do not, and the subordinated debt indenture will not, limit our ability to incur additional senior indebtedness.

When we refer to “debt securities” in this prospectus, we mean both the senior debt securities and the subordinated debt securities, unless the context requires otherwise.

The Senior Debt Indentures and the Subordinated Debt Indenture

The senior debt securities and the subordinated debt securities are each governed by a document called an “indenture”. The applicable prospectus supplement will tell you whether the senior debt securities to be offered and sold will be governed by (i) the Senior Debt Indenture, dated as of December 4, 2007, as amended or supplemented from time to time, among us, The Goldman Sachs Group, Inc., as guarantor, and The Bank of New York Mellon (formerly known as The Bank of New York), as trustee, which we refer to as the “2007 GSFC indenture”, or (ii) the Senior Debt Indenture, dated as of October 10, 2008, as amended or supplemented from time to time, among us, The Goldman Sachs Group, Inc., as guarantor, and The Bank of New York Mellon, as trustee, which we refer to as the “2008 GSFC indenture”. We refer to the 2007 GSFC indenture and the 2008 GSFC indenture together as the “senior debt indentures”. At a later date, we may enter into a supplemental indenture with The Goldman Sachs Group, Inc., as guarantor, and a bank, trust company or other financial institution (which may include The Bank of New York Mellon), as trustee, which will modify the

2008 GSFC indenture to provide for the issuance of subordinated debt securities of GSFC. Subordinated debt securities will be governed by the 2008 GSFC indenture, as supplemented by the supplemental indenture, which we refer to together as the “subordinated debt indenture”. We refer to the senior debt indentures and the subordinated debt indenture together as the “debt indentures”. We will file the subordinated debt indenture, when executed, with the SEC as an exhibit to an amendment to the registration statement of which this prospectus is a part. See “Available Information” above for information on how to obtain a copy of the subordinated debt indenture when it is filed. The debt indentures will be substantially identical, except for the covenant of The Goldman Sachs Group, Inc. described below under “— Restriction on Liens”, which will be included only in the senior debt indentures, the provisions relating to subordination, which will be included only in the subordinated debt indenture, the provisions relating to “tranches” of securities, which are included only in the 2007 GSFC indenture, certain provisions described below under “Default, Remedies and Waiver of Default — Events of Default”, which vary substantially between the two senior debt indentures and certain provisions described below under “Modification of the Debt Indentures and Waiver of Covenants”, which vary substantially between the two senior debt indentures.

Whether securities (other than Series E Medium-Term Notes) have been issued before or after July 1, 2020 under the 2008 GSFC indenture will be determined by us by reference to the time of the original issuance of the series of which such securities are a part. For this purpose, “series” means securities with the same CUSIP number. Unless otherwise provided in your prospectus supplement, all securities issued under the 2008 GSFC indenture on or after July 1, 2020 (other than Series E Medium-Term Notes) will be subject to the provisions of the Seventh Supplemental Indenture, dated as of July 1, 2020, to the 2008 GSFC indenture.

The trustee under each senior debt indenture has, and under the subordinated debt indenture will have, two main roles:

- First, the trustee can enforce your rights against us or The Goldman Sachs Group, Inc. if we or The Goldman Sachs Group, Inc. defaults. There are some limitations on the extent to which the trustee acts on your behalf, which we describe below under “— Default, Remedies and Waiver of Default”.
- Second, the trustee performs administrative duties for us, such as sending you interest payments and notices.

See “— Our Relationship With the Trustee” below for more information about the trustee.

When we refer to the “indenture” or the “trustee” with respect to any debt securities, we mean the debt indenture under which those debt securities are issued and the trustee under that debt indenture.

We May Issue Many Debt Securities or Series of Debt Securities

We may issue many distinct debt securities or series of debt securities under any of our three debt indentures. This section summarizes terms of the debt securities that apply generally to all debt securities and series of debt securities. The provisions of each debt indenture allow us not only to issue debt securities with terms different from those of debt securities previously issued under that debt indenture, but also to “reopen” previously issued debt securities and issue additional debt securities as the same series, with the same CUSIP number, stated maturity, interest payment dates, if any, and other terms, except for the date of issuance and issue price. We will describe the specific terms of your debt securities in the applicable prospectus supplement accompanying this prospectus. Those terms may vary from the terms described here.

Under the 2007 GSFC indenture, we refer to each distinct debt security as a “tranche”, each tranche comprising a portion (or, if there is only one tranche, all) of the series to which such tranche

belongs. A “tranche” under the 2007 GSFC indenture means all securities that have the same CUSIP number, stated maturity, interest payment dates, if any, and other terms, except for the date of issuance and issue price, or as may otherwise be specified in your prospectus supplement. We will determine whether a series of senior debt securities issued under the 2007 GSFC indenture is to be issued in multiple tranches at the time the series is created and, if it is, we will determine which securities will be in each tranche at the time the tranche is issued. Therefore, when we refer to “debt securities” in this prospectus, we mean the applicable tranche or tranches of senior debt securities if such debt securities are issued under the 2007 GSFC indenture or the particular debt securities or series of debt securities if such debt securities are issued under the 2008 GSFC indenture or the subordinated debt indenture, unless the context requires otherwise.

As you read this section, please remember that the specific terms of your debt security as described in your prospectus supplement will supplement and, if applicable, may modify or replace the general terms described in this section. If there are any differences between your prospectus supplement and this prospectus, your prospectus supplement will control. Thus, the statements we make in this section may not apply to your debt security.

When we refer to “debt securities” or a “series of debt securities”, we mean, respectively, debt securities or a series of debt securities issued under the applicable debt indenture. When we refer to your prospectus supplement, we mean the prospectus supplement describing the specific terms of the debt security you purchase. The terms used in your prospectus supplement will have the meanings described in this prospectus, unless otherwise specified.

Amounts That We May Issue

None of the debt indentures limits the aggregate amount of debt securities that we may issue or the number of series or the aggregate amount of any particular series of debt securities. We may issue debt securities and other securities at any time without your consent and without notifying you.

The debt indentures and the debt securities do not limit our ability to incur other indebtedness or to issue other securities. Also, we are not subject to financial or similar restrictions by the terms of the debt securities, except for The Goldman Sachs Group, Inc. as described below under “— Restriction on Liens”.

Principal Amount, Stated Maturity and Maturity

Unless otherwise stated, the principal amount of a debt security means the principal amount payable at its stated maturity, unless such amount is not determinable, in which case the principal amount of a debt security is its face amount. Any debt securities owned by us, The Goldman Sachs Group, Inc. or any of our other affiliates are not deemed to be outstanding.

The term “stated maturity” with respect to any debt security means the day on which the principal amount of your debt security is scheduled to become due. The principal of your debt security may become due sooner, by reason of redemption or acceleration after a default or otherwise in accordance with the terms of your debt security. The day on which the principal of your debt security actually becomes due, whether at the stated maturity or otherwise, is called the “maturity” of the principal. You will receive the principal amount of your debt security at maturity (plus accrued and unpaid interest, if any), unless your prospectus supplement specifies another amount.

We also use the terms “stated maturity” and “maturity” to refer to the days when other payments become due. For example, we may refer to a regular interest payment date when an installment of

interest is scheduled to become due as the “stated maturity” of that installment. When we refer to the “stated maturity” or the “maturity” of a debt security without specifying a particular payment, we mean the stated maturity or maturity, as the case may be, of the principal.

This Section Is Only a Summary

The debt indentures and their associated documents, including your debt security, contain the full legal text of the matters described in this section and your prospectus supplement. We have filed copies of the senior debt indentures and will file a copy of the subordinated debt indentures, when executed, with the SEC as exhibits to our registration statement, of which this prospectus is a part. See “Available Information” above for information on how to obtain copies of such debt indentures.

This section and your prospectus supplement summarize all the material terms of the debt indentures, where applicable, and your debt security. They do not, however, describe every aspect of the debt indentures and your debt security. For example, in this section and your prospectus supplement, we use terms that have been given special meaning in the debt indentures, but we describe the meaning for only the more important of those terms. Your prospectus supplement will have a more detailed description of the specific terms of your debt security.

Governing Law

The senior debt indentures are, and the subordinated debt indentures and the debt securities will be, governed by New York law.

Currency of Debt Securities

Amounts that become due and payable on your debt security in cash will be payable in a currency, composite currency, basket of currencies or currency unit or units specified in your prospectus supplement. We refer to this currency, composite currency, basket of currencies or currency unit or units as a “specified currency”. The specified currency for your debt security will be U.S. dollars, unless your prospectus supplement states otherwise. Some debt securities may have different specified currencies for principal and interest. You will have to pay for your debt securities by delivering the requisite amount of the specified currency for the principal to GS&Co. or another firm that we name in your prospectus supplement, unless other arrangements have been made between you and us or you and GS&Co. We will make payments on your debt securities in the specified currency, except as described below in “— Payment Mechanics for Debt Securities”. See “Considerations Relating to Securities Denominated or Payable in or Linked to a Non-U.S. Dollar Currency” below for more information about risks of investing in debt securities of this kind.

Form of Debt Securities

We will issue each debt security in global —*i.e.*, book-entry — form only, unless we specify otherwise in the applicable prospectus supplement. Debt securities in book-entry form will be represented by a global security registered in the name of a depositary, which will be the holder of all the debt securities represented by the global security. Those who own beneficial interests in a global debt security will do so through participants in the depositary’s securities clearing system, and the rights of these indirect owners will be governed solely by the applicable procedures of the depositary and its participants. We describe book-entry securities below under “Legal Ownership and Book-Entry Issuance”.

In addition, we will issue each debt security in registered form, without coupons.

Types of Debt Securities

We may issue any of the three types of senior debt securities or subordinated debt securities described below. A debt security may have elements of each of the three types of debt securities described below. For example, a debt security may bear interest at a fixed rate for some periods and at a floating rate in others. Similarly, a debt security may provide for a payment of principal at maturity linked to an index and also bear interest at a fixed or floating rate.

Fixed Rate Debt Securities

A debt security of this type will bear interest at a fixed rate described in the applicable prospectus supplement. This type includes zero coupon debt securities, which bear no interest and are instead issued at a price lower than the principal amount. See “— Original Issue Discount Debt Securities” below for more information about zero coupon and other original issue discount debt securities.

Each fixed rate debt security, except any zero coupon debt security, will bear interest from its original issue date or from the most recent date to which interest on the debt security has been paid or made available for payment. Interest will accrue on the principal of a fixed rate debt security at the fixed rate per annum stated in the applicable prospectus supplement, until the principal is paid or made available for payment or the debt security is converted or exchanged. Interest due on each interest payment date and at maturity will be calculated as described below under “— Calculations of Interest on Debt Securities”. We will pay interest on each interest payment date and at maturity as described below under “— Payment Mechanics for Debt Securities”.

If your debt security is a zero coupon debt security, the applicable prospectus supplement may specify the original issue discount and the information necessary to determine the accreted value. The accreted value will be (1) as of any date prior to the stated maturity, an amount equal to the sum of (A) the original issue price of your debt security and (B) the portion of the excess of the principal amount of your debt security over the original issue price that shall have been accreted from the original issue price on a daily basis and compounded annually on a date specified in the applicable prospectus supplement, up to and including the stated maturity, at a rate that will be specified in the applicable prospectus supplement from the original issue date, computed on the basis of the day count fraction set forth in your prospectus supplement; and (2) as of any date on or after the stated maturity, the principal amount of your debt security.

Floating Rate Debt Securities

A debt security of this type will bear interest at rates that are determined by reference to an interest rate formula. In some cases, the rates may also be adjusted by adding or subtracting a spread or multiplying by a spread multiplier and may be subject to a minimum rate or a maximum rate. The various interest rate formulas and these other features are described below in “— Calculations of Interest on Debt Securities — Floating Rate Debt Securities”. If your debt security is a floating rate debt security, the formula and any adjustments that apply to the interest rate will be specified in your prospectus supplement.

Interest due on each interest payment date and at maturity will be calculated as described below under “— Calculations of Interest on Debt Securities”. We will pay interest on each interest payment date and at maturity as described below under “— Payment Mechanics for Debt Securities”.

Indexed Debt Securities

A debt security of this type provides that the principal amount payable at its maturity, and/or the amount of interest payable on an interest payment date, will be determined by reference to:

- securities of one or more issuers;

- one or more currencies;
- one or more commodities;
- one or more indices;
- any other financial, economic or other measure or instrument, including the occurrence or non-occurrence of any event or circumstance; and/or
- one or more baskets of the items described above.

Any indexed securities that we issue will be cash settled only.

An indexed debt security may bear interest at a fixed or floating rate, if specified in your prospectus supplement. Unless otherwise indicated in your prospectus supplement, indexed debt securities that bear interest at a fixed rate will bear interest as described above under “— Fixed Rate Debt Securities” and indexed debt securities that bear interest at a floating rate will bear interest as described above under “— Floating Rate Debt Securities”.

If you purchase an indexed debt security, your prospectus supplement will include information about the relevant index or indices, about how amounts that are to become payable will be determined by reference to the price or value of that index or indices and about the terms on which the security may be settled. Your prospectus supplement will also identify the calculation agent that will calculate the amounts payable with respect to the indexed debt security and will have sole discretion in doing so. The calculation agent may be GS&Co. or another of our affiliates. See “Considerations Relating to Indexed Securities” for more information about risks of investing in debt securities of this type.

Original Issue Discount Debt Securities

A fixed rate debt security, a floating rate debt security or an indexed debt security may be an original issue discount debt security. A debt security of this type is issued at a price lower than its principal amount and may provide that, upon redemption or acceleration of its maturity, an amount less than its principal amount may be payable. An original issue discount debt security may be a zero coupon debt security. A debt security issued at a discount to its principal may, for United States federal income tax purposes, be considered an original issue discount debt security, regardless of the amount payable upon redemption or acceleration of maturity. See “United States Taxation — Taxation of Debt Securities — United States Holders — Original Issue Discount” below for a brief description of the United States federal income tax consequences of owning an original issue discount debt security.

Information in Your Prospectus Supplement

Your prospectus supplement will describe the specific terms of your debt security, which will include some or all of the following:

- whether it is a senior debt security or a subordinated debt security and, if it is a senior debt security, under which senior debt indenture it will be issued;
- the aggregate principal amount of your debt security or the debt securities of the same series, as applicable;
- the stated maturity;
- the specified currency or currencies for principal and interest and, if the specified currency is not U.S. dollars, certain other terms relating to your debt security;
- the issue price at which we originally issue your debt security, expressed as a percentage of the principal amount, and the original issue date;

- whether your debt security is a fixed rate debt security, a floating rate debt security or an indexed debt security or any combination thereof;
- if your debt security is a fixed rate debt security, a rate per annum at which your debt security will bear interest, if any, the applicable business day convention, the day count convention for computing interest payable for an interest period and the interest payment dates;
- if your debt security is a floating rate debt security, the interest rate basis; any applicable index currency or index maturity, spread or spread multiplier or initial base rate, maximum rate or minimum rate; the interest reset, determination, calculation and payment dates; the day count convention used to calculate interest payments for any period; the business day convention; and the calculation agent;
- if your debt security is an indexed debt security, the principal amount, if any, we will pay you at maturity, the amount of interest, if any, we will pay you on an interest payment date or the formula we will use to calculate these amounts, if any, and the terms on which your debt security will be paid;
- if your debt security is also an original issue discount debt security, the yield to maturity;
- if applicable, the circumstances under which your debt security may be redeemed at our option or repaid at the holder's option before the stated maturity, including any redemption commencement date, repayment date(s), redemption price(s) and redemption period(s);
- the authorized denominations, if other than \$1,000 and integral multiples of \$1,000 in excess thereof;
- the depository for your debt security, if other than DTC, and any circumstances under which the holder may request securities in non- global form, if we choose not to issue your debt security in book-entry form only;
- if applicable, the circumstances under which we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes and under which we can redeem the debt securities if we have to pay additional amounts;
- the names and duties of any co-trustees, depositories, authenticating agents, paying agents, transfer agents or registrars for your debt security, as applicable;
- any terms of guarantee of your debt security by The Goldman Sachs Group, Inc. that is different from or in addition to the description under "— Guarantee" below; and
- any other terms of your debt security, which could be different from those described in this prospectus.

Market-Making Transactions. If you purchase your debt security — or any of our other securities we describe in this prospectus — in a market-making transaction, you will receive information about the issue price you pay and your trade and settlement dates in a separate confirmation of sale. A market-making transaction is one in which GS&Co. or another of our affiliates resells a security that it has previously acquired from another holder. A market-making transaction in a particular security occurs after the original issuance and sale of the security. See "Plan of Distribution" below.

Calculations of Interest on Debt Securities

Interest Rates and Interest. Fixed rate debt securities will have the interest rate stated in the applicable prospectus supplement.

For each floating rate debt security, the calculation agent will determine, on the corresponding interest calculation or interest determination date, as described below or in the applicable prospectus supplement, the interest rate that takes effect on each interest reset date. Upon the request of the holder of any floating rate debt security, the calculation agent will provide for that debt security the interest rate then in effect — and, if determined, the interest rate that will become effective on the next interest reset date. The calculation agent's determination of any interest rate, and its calculation of the amount of interest for any interest period, will be final and binding in the absence of manifest error. In determining the base rate that applies to a floating rate debt security issued prior to July 1, 2020 during a particular interest period, the calculation agent may obtain rate quotes from various banks or dealers active in the relevant market, as described below or in the applicable prospectus supplement. Those reference banks and dealers may include the calculation agent itself and its affiliates, as well as any underwriter, dealer or agent participating in the distribution of the relevant floating rate debt securities and its affiliates, and they may include affiliates of The Goldman Sachs Group, Inc.

The references below to provisions of the 2006 ISDA Definitions refer to the referenced provisions as published by the International Swaps and Derivatives Association, without regard to any subsequent amendments or supplements (the "2006 ISDA Definitions").

The calculation agent (in the case of floating rate debt securities) or the paying agent, which may be the indenture trustee (in the case of fixed rate debt securities) will calculate the amount of interest that has accrued during each interest period — *i.e.*, the period from and including the original issue date, or the last date to which interest has been paid (which may be an interest payment date, depending on the business day convention that applies to your debt securities), to but excluding the next date to which interest will be paid (which may be an interest payment date, depending on the business day convention that applies to your debt securities, as described under "— Business Day Conventions" below). For each interest period, the agent will calculate the amount of accrued interest by multiplying the principal amount or face amount of the debt security, as applicable, by an accrued interest factor for the interest period. The accrued interest factor will be determined by multiplying the per annum fixed rate or floating rate, as applicable, by a factor resulting from the day count convention specified below or in your prospectus supplement, which may include the following:

- If "1/1 (ISDA)" or "1/1" is specified, the factor will be equal to 1, as described in Section 4.16(a) of the 2006 ISDA Definitions.
- If "Actual/Actual", "Actual/Actual (ISDA)", "Act/Act" or "Act/Act (ISDA)" is specified, the factor will be equal to the actual number of days in the interest period divided by 365 (or, if any portion of that interest period falls in a leap year, the sum of (1) the actual number of days in that portion of the interest period falling in a leap year divided by 366 and (2) the actual number of days in that portion of the interest period falling in a non-leap year divided by 365), as described in Section 4.16(b) of the 2006 ISDA Definitions.
- If "Actual/Actual (ICMA)" or "Act/Act (ICMA)" is specified, the factor will be equal to the number of days in the interest period, including February 29 in a leap year, divided by the product of (1) the actual number of days in such interest period and (2) the number of interest periods in the year, as described in Section 4.16(c) of the 2006 ISDA Definitions.
- If "Actual/365 (Fixed)", "Act/365 (Fixed)", "A/365 (Fixed)" or "A/365F" is specified, the factor will be equal to the actual number of days in the interest period divided by 365, as described in Section 4.16(d) of the 2006 ISDA Definitions.
- If "Actual/360 (ISDA)", "Act/360 (ISDA)", "A/360 (ISDA)", "Actual/360", "Act/360" or "A/360" is specified, the factor will be equal to the actual number of days in the interest period divided by 360, as described in Section 4.16(e) of the 2006 ISDA Definitions.
- If "30/360 (ISDA)", "360/360 (ISDA)", "Bond Basis (ISDA)", "30/360", "360/360" or "Bond Basis" is specified, the factor will be equal to the number of days in the interest period in

respect of which payment is being made divided by 360, calculated on a formula basis as follows, as described in Section 4.16(f) of the 2006 ISDA Definitions:

$$\frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

“Y₁” is the year, expressed as a number, in which the first day of the interest period falls;

“Y₂” is the year, expressed as a number, in which the day immediately following the last day included in the interest period falls;

“M₁” is the calendar month, expressed as a number, in which the first day of the interest period falls;

“M₂” is the calendar month, expressed as a number, in which the day immediately following the last day included in the interest period falls;

“D₁” is the first calendar day, expressed as a number, of the interest period, unless such number would be 31, in which case D₁ will be 30; and

“D₂” is the calendar day, expressed as a number, immediately following the last day included in the interest period, unless such number would be 31 and D₁ is greater than 29, in which case D₂ will be 30.

- If “30E/360” or “Eurobond Basis” is specified, the factor will be equal to the number of days in the interest period in respect of which payment is being made divided by 360, calculated on a formula basis as follows, as described in Section 4.16(g) of the 2006 ISDA Definitions:

$$\frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

“Y₁” is the year, expressed as a number, in which the first day of the interest period falls;

“Y₂” is the year, expressed as a number, in which the day immediately following the last day included in the interest period falls;

“M₁” is the calendar month, expressed as a number, in which the first day of the interest period falls;

“M₂” is the calendar month, expressed as a number, in which the day immediately following the last day included in the interest period falls;

“D₁” is the first calendar day, expressed as a number, of the interest period, unless such number would be 31, in which case D₁ will be 30; and

“D₂” is the calendar day, expressed as a number, immediately following the last day included in the interest period, unless such number would be 31, in which case D₂ will be 30.

- If “30E/360 (ISDA)” is specified, the factor will be equal to the number of days in the interest period in respect of which payment is being made divided by 360, calculated on a formula basis as follows, as described in Section 4.16(h) of the 2006 ISDA Definitions:

$$\frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

“Y₁” is the year, expressed as a number, in which the first day of the interest period falls;

“Y₂” is the year, expressed as a number, in which the day immediately following the last day included in the interest period falls;

“M₁” is the calendar month, expressed as a number, in which the first day of the interest period falls;

“M₂” is the calendar month, expressed as a number, in which the day immediately following the last day included in the interest period falls;

“D₁” is the first calendar day, expressed as a number, of the interest period, unless (i) that day is the last day of February or (ii) such number would be 31, in which cases D₁ will be 30; and

“D₂” is the calendar day, expressed as a number, immediately following the last day included in the interest period, unless (i) that day is the last day of February, but not the stated maturity date or (ii) such number would be 31, in which cases D₂ will be 30.

All percentages resulting from any calculation relating to any debt security will be rounded upward or downward, as appropriate, to the next higher or lower one hundred-thousandth of a percentage point, *e.g.*, 9.876541% (or .09876541) being rounded down to 9.87654% (or .0987654) and 9.876545% (or .09876545) being rounded up to 9.87655% (or .0987655). All amounts used in or resulting from any calculation relating to any debt security will be rounded upward or downward, as appropriate, to the nearest cent, in the case of U.S. dollars, or to the nearest corresponding hundredth of a unit, in the case of a currency other than U.S. dollars, with one-half cent or one-half of a corresponding hundredth of a unit or more being rounded upward.

Interest Reset Dates and Determining the New Rate. The rate of interest on floating rate debt securities will be reset daily, weekly, monthly, quarterly, semi-annually or annually, depending on your rate and the terms of your debt security. The date on which the interest rate resets and the new interest rate becomes effective is called the interest reset date. Interest reset dates are subject to adjustment, as described below under “— Business Day Conventions”.

The interest rate that takes effect on a particular interest reset date will be determined by the calculation agent for certain base rates by reference to a particular date called an interest determination date and, in any event, no later than the business day prior to the interest reset date. The calculation agent need not wait until the business day prior to the reset date to determine the interest rate if the rate information it needs to make the determination is available from the relevant sources sooner. The base rate in effect from and including the original issue date to but excluding the first interest reset date (“the initial interest period”) will be the initial base rate, which will be specified in your prospectus supplement. For floating rate debt securities that reset daily or weekly, the base rate in effect for each day following the fifth business day before an interest payment date to, but excluding, the interest payment date, and for each day following the fifth business day before the maturity to, but excluding, the maturity, will be the base rate in effect on that fifth business day.

Interest Payment Dates. Subject to any applicable business day convention as described under “— Business Day Conventions” below, interest on your debt securities will be paid on the interest payment dates. The interest payment dates will be specified in your prospectus supplement. If debt securities are originally issued after the regular record date and before the date that would otherwise be the first interest payment date, the first interest payment date will be the date that would otherwise be the second interest payment date. We have defined the term “regular record date” under “— Payment Mechanics for Debt Securities”.

Business Day Conventions. If your prospectus supplement specifies that one of the following business day conventions is applicable to your debt security, the interest payment dates, interest reset dates and interest periods for your debt securities will be affected (and, consequently, may be adjusted) as described below, except that any payment due at maturity (including any interest payment) will not be affected as described below:

- “**Following business day convention**” means, for any relevant date other than the maturity, if such date would otherwise fall on a day that is not a business day, then such date will be postponed to the next day that is a business day.
- “**Modified following business day convention**” means, for any relevant date other than the maturity, if such date would otherwise fall on a day that is not a business day, then such date will be postponed to the next day that is a business day, except that, if the next business day falls in the next calendar month, then such date will be advanced to the immediately preceding day that is a business day.
- “**Following unadjusted business day convention**” means, for any interest payment date, other than the maturity, that falls on a day that is not a business day, any payment due on such interest payment date will be postponed to the next day that is a business day; provided that interest due with respect to such interest payment date shall not accrue from and including such interest payment date to and including the date of payment of such interest as so postponed. Interest reset dates and interest periods also are not adjusted for non-business days.
- “**Modified following unadjusted business day convention**” means, for any interest payment date, other than the maturity, that falls on a day that is not a business day, any payment due on such interest payment date will be postponed to the next day that is a business day; *provided* that interest due with respect to such interest payment date shall not accrue from and including such interest payment date to and including the date of payment of such interest as so postponed, and *provided further* that, if such day would fall in the next succeeding calendar month, the date of payment with respect to such interest payment date will be advanced to the business day immediately preceding such interest payment date. Interest reset dates and interest periods also are not adjusted for non-business days.

In all cases, if the stated maturity or any earlier redemption date or repayment date with respect to any debt security falls on a day that is not a business day, any payment of principal, premium, if any, and interest otherwise due on such day will be made on the next succeeding business day, and no interest on such payment shall accrue for the period from and after such stated maturity, redemption date or repayment date, as the case may be.

Business Days. One or more of the following business day definitions may apply to any debt security, as specified in your prospectus supplement:

“**Euro business day**” means each Monday, Tuesday, Wednesday, Thursday and Friday on which the Trans-European Automated Real-Time Gross Settlement Express Transfer (TARGET) System, or any successor system, is open for business.

“**London business day**” means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in London generally are authorized or obligated by law, regulation or executive order to close.

“**New York City banking day**” means any day on which commercial banks are open for general business (including dealings in foreign exchange and foreign currency deposits) in New York City.

“**New York business day**” means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions in New York City generally are authorized or obligated by law, regulation or executive order to close.

“**U.S. government securities business day**” means any day other than a Saturday, a Sunday or a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in U.S. government securities.

Additional business days or alternative business day definitions not specified above may apply to any debt security and, if applicable, will be described in your prospectus supplement.

Floating Rate Debt Securities.

In this subsection, we use several specialized terms relating to the manner in which floating interest rates are calculated. These terms appear in **bold, italicized** type the first time they appear, and we define these terms in “— Special Rate Calculation Terms” below.

Base Rates. We currently expect to issue floating rate debt securities that bear interest at rates based on one or more of the following base rates.

- CMS rate;
- CMT rate;
- federal funds rate;
- SOFR;
- SOFR ICE Swap Rate; and/or
- treasury rate.

We describe each of these base rates in further detail below in this section entitled “— Calculations of Interest on Debt Securities — Floating Rate Debt Securities”. If you purchase floating rate debt securities, your prospectus supplement will specify the type of base rate that applies to your debt securities and whether your debt securities are subject to a spread, spread multiplier, minimum rate or maximum rate.

Day Count Convention. Unless otherwise specified in your prospectus supplement, federal funds rate debt securities, SOFR debt securities and prime rate debt securities will be subject to the Actual/360 (ISDA) day count convention, and CMS rate debt securities, CMT rate debt securities and treasury rate debt securities will be subject to the Actual/Actual (ISDA) day count convention, as described above under “— Interest Rates and Interest”.

Initial Base Rate. Unless otherwise specified in your prospectus supplement, for floating rate debt securities other than SOFR debt securities, the initial base rate will be the applicable base rate in effect from and including the original issue date to but excluding the initial interest reset date. We will specify the initial base rate in your prospectus supplement.

Spread or Spread Multiplier. In some cases, the base rate for floating rate debt securities may be adjusted:

- by adding or subtracting a specified number of basis points, called the spread, with one basis point being 0.01%;
- by multiplying the base rate by a specified percentage, called the spread multiplier; or
- by a combination of the foregoing.

If you purchase floating rate debt securities, your prospectus supplement will specify whether a spread or spread multiplier will apply to your debt securities and, if so, the amount of the applicable spread or spread multiplier.

Maximum and Minimum Rates. The actual interest rate, after being adjusted by the spread or spread multiplier, may also be subject to either or both of the following limits:

- a maximum rate — i.e., a specified upper limit that the actual interest rate in effect at any time may not exceed; and/or
- a minimum rate — i.e., a specified lower limit that the actual interest rate in effect at any time may not fall below.

If you purchase floating rate debt securities, your prospectus supplement will specify whether a maximum rate and/or minimum rate will apply to your debt securities and, if so, what those rates are.

Whether or not a maximum rate applies, the interest rate on floating rate debt securities will in no event be higher than the maximum rate permitted by New York law, as it may be modified by U.S. law of general application. Under current New York law, the maximum rate of interest, with some exceptions, for any loan in an amount less than \$250,000 is 16% and for any loan in the amount of \$250,000 or more but less than \$2,500,000 is 25%, per year on a simple interest basis. These limits do not apply to loans of \$2,500,000 or more.

Interest Determination Dates. The interest rate that takes effect on an interest reset date will be determined by the calculation agent for certain base rates by reference to a particular date called an interest determination date for floating rate debt securities other than SOFR debt securities. Except as otherwise specified in your prospectus supplement:

- For CMS rate debt securities and CMT rate debt securities, the interest determination date relating to a particular interest reset date will be the second U.S. Government securities business day preceding the interest reset date.
- For EURIBOR debt securities, the interest determination date relating to a particular interest reset date will be the second Euro business day preceding the interest reset date. We refer to an interest determination date for EURIBOR debt securities as a EURIBOR interest determination date.

Sources and Corrections. If we refer to a rate as set forth on a display page, other published source, information vendor or other vendor officially designated by the sponsor of that rate, if there is a successor source for the display page, other published source, information vendor or other official vendor, we refer to that successor source as applicable as determined by the calculation agent. When we refer to a particular heading or headings on any of those sources, those references include any successor or replacement heading or headings as determined by the calculation agent.

If the applicable rate is based on information obtained from a Refinitiv page, that rate will be subject to the corrections, if any, published on that Refinitiv page within one hour of the time that rate was first displayed on such source. If the applicable rate is based on information obtained from H.15 Daily Update, that rate will be subject to the corrections, if any, published by that source within 30 days of the day that rate was first published in that source.

CMS Rate.

Floating Rate Debt Securities Issued on or after July 1, 2020

For floating rate debt securities issued on or after July 1, 2020 for which the base rate is CMS rate, unless otherwise specified in your prospectus supplement, the CMS rate will be the offered rate

appearing on the Refinitiv page ICESWAP1 for U.S. dollar swaps having a maturity equal to the **index maturity** specified in your prospectus supplement as of approximately 11:00 A.M., New York City time, on the relevant interest determination date. If the CMS rate cannot be determined as described above, the following procedures will apply in determining the CMS rate:

If the calculation agent determines on the relevant interest determination date that the CMS rate has been discontinued, then the calculation agent will use a substitute or successor rate that it has determined in its sole discretion is most comparable to the CMS rate, provided that if the calculation agent determines there is an industry-accepted successor rate, then the calculation agent shall use such successor rate. If the calculation agent has determined a substitute or successor rate in accordance with the foregoing, the calculation agent in its sole discretion may determine the definition of business day and the relevant interest determination date to be used, and any other relevant methodology for calculating such substitute or successor rate, including any adjustment factor needed to make such substitute or successor rate comparable to the CMS rate, in a manner that is consistent with any industry-accepted practices for such substitute or successor rate.

Unless the calculation agent uses a substitute or successor rate as so provided, if the CMS rate cannot be determined in the manner described above on the interest determination date, the CMS rate will be determined by the calculation agent, after consulting such sources as it deems comparable to the foregoing display page, or any other source it deems reasonable, in its sole discretion.

Floating Rate Debt Securities Issued prior to July 1, 2020

For floating rate debt securities issued prior to July 1, 2020 for which the base rate is CMS rate, unless otherwise specified in your prospectus supplement, the CMS rate for the relevant interest reset date will be the rate appearing on the Refinitiv page ICESWAP1 for U.S. dollar swaps having a maturity equal to the index maturity specified in your prospectus supplement as of approximately 11:00 A.M., New York City time, on the relevant interest determination date. If the CMS rate cannot be determined in this manner, then:

The CMS rate for the relevant interest reset date will be determined on the basis of the mid-market semi-annual swap rate quotations provided by five leading swap dealers in the New York City interbank market at approximately 11:00 A.M., New York City time, on the relevant interest determination date. For this purpose, the semi-annual swap rate means the mean of the bid and offered rates for the semi-annual fixed leg, calculated on a 30/360 (ISDA) day count basis, of a fixed-for-floating U.S. dollar interest rate swap transaction with a term equal to the specified index maturity, commencing on the relevant interest reset date, with an acknowledged dealer of good credit in the swap market, where the floating leg, calculated on an Actual/360 (ISDA) day count basis, is equivalent to LIBOR with a designated maturity of three months, as such rate may be determined in accordance with the provisions set forth below under “— LIBOR”. The calculation agent will select the five swap dealers in its sole discretion and will request the principal New York City office of each of those dealers to provide a quotation of its rate.

If at least three quotations are provided, the CMS rate for that interest reset date will be the arithmetic mean of the quotations described above, eliminating the highest and lowest quotations or, in the event of equality, one of the highest and one of the lowest quotations.

If fewer than three quotations are provided, the calculation agent will determine the CMS rate in its sole discretion.

CMT Rate.

Floating Rate Debt Securities Issued on or after July 1, 2020

For floating rate debt securities issued on or after July 1, 2020 for which the base rate is CMT rate, unless otherwise specified in your prospectus supplement, the manner in which the CMT rate is determined for the relevant interest reset date will depend on the **designated CMT Refinitiv page** that is specified for the debt in the applicable prospectus supplement. If no designated CMT Refinitiv page is specified, Refinitiv page FRBCMT will be the designated CMT Refinitiv page for the debt securities.

If the designated CMT Refinitiv page for your floating rate debt securities is FRBCMT, the CMT rate for the relevant interest reset date will be the yield for Treasury securities at “constant maturity” for a period of the **designated CMT index maturity** as published by the Federal Reserve System Board of Governors, or its successor, on its website or in another recognized electronic source, in each case as determined by the calculation agent in its sole discretion, as such yield is displayed on the designated CMT Refinitiv page on the interest determination date. If the applicable rate described above is not displayed on the designated CMT Refinitiv page, then the CMT rate will be the Treasury constant maturity rate for the designated CMT index maturity as published by the Federal Reserve System Board of Governors, or its successor, on its website or in another recognized electronic source, in each case as determined by the calculation agent in its sole discretion.

If the rate described in the preceding paragraph does not appear on the website of the Federal Reserve System Board of Governors or in another recognized electronic source, in each case as determined by the calculation agent in its sole discretion, then the CMT rate for the relevant interest reset date will be the Treasury constant maturity rate for the designated CMT index maturity that:

- is published by the Board of Governors of the Federal Reserve System or the U.S. Department of the Treasury; and
- is determined by the calculation agent to be comparable to the applicable rate that would otherwise have been published on the website of the Federal Reserve System Board of Governors or in another recognized electronic source, in each case as determined by the calculation agent in its sole discretion.

If, on the relevant interest determination date, the Board of Governors of the Federal Reserve System or the U.S. Department of the Treasury does not publish a yield on Treasury securities at “constant maturity” for the designated CMT index maturity, after consulting such sources as it deems comparable to any of the foregoing display pages, or any such source as it deems reasonable from which to estimate the CMT rate, the calculation agent shall determine the CMT rate in its sole discretion, provided that if the calculation agent determines there is an industry-accepted successor CMT rate, then the calculation agent shall use such successor rate. If the calculation agent has determined a substitute or successor rate in accordance with the foregoing, the calculation agent in its sole discretion may determine the business day convention, the definition of business day and the interest determination date to be used and any other relevant methodology for calculating such substitute or successor rate, including any adjustment factor needed to make such substitute or successor rate comparable to the CMT rate, in a manner that is consistent with any industry-accepted practices for such substitute or successor rate.

If the designated CMT Refinitiv page for the floating rate debt securities issued on or after July 1, 2020 is FEDCMT, the CMT rate for the relevant interest reset date will be the average of the yields for the five business days for Treasury securities at “constant maturity” for a period of the designated CMT index maturity as set forth on the website of the Federal Reserve System Board of Governors or in another recognized electronic source, in each case as determined by the calculation agent in its sole discretion, as such yields are displayed on the designated CMT Refinitiv page on the relevant interest reset date.

If the applicable average described above is not displayed on the designated CMT Refinitiv page, then the CMT rate for the relevant interest reset date will be the average of the yields for the five business days for Treasury securities at “constant maturity” for a period of the relevant index maturity and for the five business days preceding the relevant interest reset date as published on the website of the Federal Reserve System Board of Governors or in another recognized electronic source, in each case as determined by the calculation agent in its sole discretion.

If the applicable average described in the preceding paragraph does not appear on the website of the Federal Reserve System Board of Governors or in another recognized electronic source, in each case as determined by the calculation agent in its sole discretion, then the CMT rate for the relevant interest reset date will be the average of the five business days for Treasury securities at “constant maturity” for a period equal to the designated CMT index maturity as otherwise announced by the Federal Reserve Bank of New York the five business days preceding the relevant interest reset date.

If, on the relevant interest determination date, the Board of Governors of the Federal Reserve System or the U.S. Department of the Treasury does not publish a yield on Treasury securities at “constant maturity” for the designated CMT index maturity, after consulting such sources as it deems comparable to any of the foregoing display pages, or any such source as it deems reasonable from which to estimate the CMT rate, the calculation agent shall determine the CMT rate in its sole discretion, provided that if the calculation agent determines there is an industry-accepted successor CMT rate, then the calculation agent shall use such successor rate. If the calculation agent has determined a substitute or successor rate in accordance with the foregoing, the calculation agent in its sole discretion may determine the business day convention, the definition of business day and the interest determination date to be used and any other relevant methodology for calculating such substitute or successor rate, including any adjustment factor needed to make such substitute or successor rate comparable to the CMT rate, in a manner that is consistent with any industry-accepted practices for such substitute or successor rate.

Floating Rate Debt Securities Issued Prior to July 1, 2020

For floating rate debt securities issued prior to July 1, 2020 for which the base rate is CMT rate, unless otherwise specified in your prospectus supplement, the manner in which the CMT rate is determined for the relevant interest reset date will depend on the designated CMT Refinitiv page that is specified for the floating rate debt securities in the applicable prospectus supplement. If no designated CMT Refinitiv page is specified, Refinitiv page FRBCMT will be the designated CMT Refinitiv page for the floating rate debt securities.

If the designated CMT Refinitiv page for the floating rate debt securities is FRBCMT, the CMT rate for the relevant interest reset date will be the yield for Treasury securities at “constant maturity” for a period of the designated CMT index maturity as published by the Federal Reserve System Board of Governors, or its successor, on its website or in another recognized electronic source, in each case as determined by the calculation agent in its sole discretion, as such yield is displayed on the designated CMT Refinitiv page on the interest determination date. If the applicable rate described above is not displayed on the designated CMT Refinitiv page, then the CMT rate will be the Treasury constant maturity rate for the designated CMT index maturity as published by the Federal Reserve System Board of Governors, or its successor, on its website or in another recognized electronic source, in each case as determined by the calculation agent in its sole discretion.

If the rate described in the preceding paragraph does not appear on the website of the Federal Reserve System Board of Governors or in another recognized electronic source, in each case as determined by the calculation agent in its sole discretion, then the CMT rate for the relevant interest reset date will be the Treasury constant maturity rate for the designated CMT index maturity that:

- is published by the Board of Governors of the Federal Reserve System or the U.S. Department of the Treasury; and
- is determined by the calculation agent to be comparable to the applicable rate that would otherwise have been published on the website of the Federal Reserve System Board of Governors or in another recognized electronic source, in each case as determined by the calculation agent in its sole discretion.

If, on the relevant interest determination date, the rate described in the preceding paragraph is not published by the Board of Governors of the Federal Reserve System or the U.S. Department of Treasury, then the CMT rate for the relevant interest reset date will be the yield to maturity of the arithmetic mean of the secondary market bid rates for the most recently issued U.S. Treasury securities having an original maturity of approximately the designated CMT index maturity and a remaining term to maturity of not less than the designated CMT index maturity *minus* one year, and in a **representative amount**, as of approximately 3:30 P.M., New York City time, on the relevant interest determination date, quoted by three primary U.S. government securities dealers in New York City selected by the calculation agent. In selecting these bid rates, the calculation agent will request quotations from five primary dealers and will disregard the highest quotation — or, if there is equality, one of the highest — and the lowest quotation — or, if there is equality, one of the lowest. If fewer than five but more than two such bid rates are provided, the CMT rate will be based on the arithmetic mean of the bid prices provided, and neither the highest nor lowest of such quotations will be eliminated.

If the calculation agent is unable to obtain three quotations of the kind described in the preceding paragraph, the CMT rate for the relevant interest reset date will be the yield to maturity of the arithmetic mean of the secondary market bid rates for U.S. Treasury securities with an original maturity longer than the designated CMT index maturity, with a remaining term to maturity closest to the designated CMT index maturity and in a representative amount, as of approximately 3:30 P.M., New York City time, on the relevant CMT interest determination date, of three primary U.S. government securities dealers in New York City selected by the calculation agent. In selecting these bid rates, the calculation agent will request quotations from five of these primary dealers and will disregard the highest quotation — or, if there is equality, one of the highest — and the lowest quotation — or, if there is equality, one of the lowest. If fewer than five but more than two of these primary dealers are quoting, then the CMT rate for the relevant interest reset date will be based on the arithmetic mean of the bid rates so obtained, and neither the highest nor the lowest of those quotations will be disregarded. If two U.S. Treasury securities with an original maturity longer than the designated CMT index maturity have remaining terms to maturity that are equally close to the designated CMT index maturity, the calculation agent will obtain quotations for the U.S. Treasury securities with the shorter original term to maturity.

If two or fewer primary dealers selected by the calculation agent are quoting as described in the preceding paragraph, the CMT rate for the relevant interest reset date will be the rate determined by the calculation agent in its sole discretion, after consulting such sources as it deems comparable to any of the foregoing quotations or display page, or any such source as it deems reasonable from which to estimate the rate for U.S. Treasury securities at constant maturity or any of the foregoing bid rates.

If the designated CMT Refinitiv page for the floating rate debt securities issued prior to July 1, 2020 is FEDCMT, the CMT rate for the relevant interest reset date will be the one-week average yield for Treasury securities at “constant maturity” for a period of the designated CMT index maturity as set

forth on the website of the Federal Reserve System Board of Governors or in another recognized electronic source, in each case as determined by the calculation agent in its sole discretion, as such yields are displayed on the designated CMT Refinitiv page on the relevant interest reset date.

If the applicable average described above is not displayed on the designated CMT Refinitiv page, then the CMT rate for the relevant interest reset date will be the one-week average yield for Treasury securities at “constant maturity” for a period of the designated CMT index maturity and for the week preceding the relevant interest reset date as published on the website of the Federal Reserve System Board of Governors or in another recognized electronic source, in each case as determined by the calculation agent in its sole discretion.

If the applicable average described in the preceding paragraph does not appear on the website of the Federal Reserve System Board of Governors or in another recognized electronic source, in each case as determined by the calculation agent in its sole discretion, then the CMT rate for the relevant interest reset date will be the one-week average yield for Treasury securities at “constant maturity” for a period equal to the designated CMT index maturity as otherwise announced by the Federal Reserve Bank of New York for the week preceding the relevant interest reset date.

If for the week preceding the relevant interest reset date the Federal Reserve Bank of New York does not publish a one-week average yield for Treasury securities at “constant maturity” for a period equal to the designated CMT index maturity for the preceding week, then the CMT rate for the relevant interest reset date will be the yield to maturity of the arithmetic mean of the secondary market bid rates for the most recently issued U.S. Treasury securities having an original maturity of approximately the designated CMT index maturity and a remaining term to maturity of not less than the designated CMT index maturity *minus* one year, and in a representative amount, as of approximately 3:30 P.M., New York City time, on the relevant CMT interest determination date, quoted by three primary U.S. government securities dealers in New York City selected by the calculation agent. In selecting these bid rates, the calculation agent will request quotations from five primary dealers and will disregard the highest quotation — or, if there is equality, one of the highest — and the lowest quotation — or, if there is equality, one of the lowest. If fewer than five but more than two such bid rates are provided, the CMT rate will be based on the arithmetic mean of the bid prices provided, and neither the highest nor lowest of such quotations will be eliminated.

If the calculation agent is unable to obtain three quotations of the kind described in the preceding paragraph, the CMT rate for the relevant interest reset date will be the yield to maturity of the arithmetic mean of the secondary market bid rates for U.S. Treasury securities with an original maturity longer than the designated CMT index maturity, with a remaining term to maturity closest to the designated CMT index maturity and in a representative amount, as of approximately 3:30 P.M., New York City time, on the relevant CMT interest determination date, of three primary U.S. government securities dealers in New York City selected by the calculation agent. In selecting these bid rates, the calculation agent will request quotations from five of these primary dealers and will disregard the highest quotation — or, if there is equality, one of the highest — and the lowest quotation — or, if there is equality, one of the lowest. If fewer than five but more than two of these primary dealers are quoting, then the CMT rate for the relevant interest reset date will be based on the arithmetic mean of the bid rates so obtained, and neither the highest nor the lowest of those quotations will be disregarded. If two U.S. Treasury securities with an original maturity longer than the designated CMT index maturity have remaining terms to maturity that are equally close to the designated CMT index maturity, the calculation agent will obtain quotations for the U.S. Treasury securities with the shorter original term to maturity.

If two or fewer primary dealers selected by the calculation agent are quoting as described in the preceding paragraph, the CMT rate for the relevant interest reset date will be the rate determined by

the calculation agent in its sole discretion, after consulting such sources as it deems comparable to any the foregoing quotations or display page, or any such source as it deems reasonable from which to estimate of the one-week average for U.S. Treasury securities at constant maturity or any of the foregoing bid rates.

EURIBOR. For floating rate debt securities issued prior to July 1, 2020 for which the base rate is EURIBOR, EURIBOR will be the offered rate for deposits in euros having the index maturity specified in the applicable prospectus supplement, as that rate appears on the Refinitiv page EURIBOR01 as of approximately 11:00 A.M., Brussels time, on the relevant interest determination date.

If the rate described above does not so appear on the Refinitiv page EURIBOR01, EURIBOR will be determined on the basis of the rates at which deposits in euros are offered by four major banks in the **euro-zone** interbank market, at approximately 11:00 A.M., Brussels time, on the relevant EURIBOR interest determination date, to prime banks in the euro-zone interbank market for a period of the specified index maturity commencing on the relevant interest reset date and in a representative amount, assuming an Actual/360 (ISDA) day count basis. The calculation agent will request the principal euro-zone office of each of these four banks to provide a quotation of its rate. If at least two quotations are provided, EURIBOR for the relevant interest reset date will be the arithmetic mean of the quotations.

If fewer than two quotations are provided as described in the preceding paragraph, EURIBOR for the relevant interest reset date will be the arithmetic mean of the rates quoted by major banks in the euro-zone, selected by the calculation agent at approximately 11:00 A.M., Brussels time, on that interest reset date, for loans of euros to leading European banks for the specified index maturity, beginning on the relevant interest reset date, and in a representative amount.

If no quotation is provided as described in the preceding paragraph, then the calculation agent, after consulting such sources as it deems comparable to any of the foregoing quotations or display page, or any such source as it deems reasonable from which to estimate EURIBOR or any of the foregoing lending rates, shall determine EURIBOR for that interest reset date in its sole discretion.

Federal Funds Rate. For floating rate debt securities issued prior to July 1, 2020 for which the base rate is federal funds rate, the applicable prospectus supplement describes how federal funds rate is determined.

In respect of future floating rate debt securities issued on or after July 1, 2020 for which the base rate is federal funds rate, federal funds rate will be the rate for U.S. dollar federal funds on the relevant interest reset date, as set forth in **H.15 Daily Update** opposite the heading “Federal funds (effective)”, as that rate is displayed on the Refinitiv page FEDFUNDS1 for that day.

If, by approximately 5:00 P.M., New York City time, on the day that is one New York City banking day following the relevant interest reset date, the federal funds (effective) rate for the relevant interest reset date does not appear on Refinitiv page FEDFUNDS1, then the federal funds (effective) rate, for that interest reset date, will be the rate published in H.15 Daily Update, or another recognized electronic source used for displaying that rate, under the heading “Federal funds (effective)”.

If the rate cannot be determined as described in the preceding paragraph, then the federal funds (effective) rate for the relevant interest reset date will be the rate for the first day preceding the relevant interest reset date for which such rate is set forth in H.15 Daily Update opposite the heading “Federal funds (effective)”, as such rate is displayed on the Refinitiv page FEDFUNDS1.

SOFR. For floating rate debt securities issued prior to July 1, 2020 for which the base rate is compounded SOFR, the applicable prospectus supplement describes how compounded SOFR is determined.

In respect of future floating rate debt securities issued on or after July 1, 2020 for which the base rate is compounded SOFR, compounded SOFR will be determined by the calculation agent using the formula described below, unless otherwise specified in your prospectus supplement.

As used in this section entitled “— Calculations of Interest on Debt Securities — Floating Rate Debt Securities — SOFR”, SOFR means, with respect to any date:

- (1) the Secured Overnight Financing Rate published for such date as such rate appears on the Federal Reserve Bank of New York’s Website at 3:00 p.m. (New York time) on the immediately following U.S. Government Securities Business Day.
- (2) if the rate specified in (1) above does not so appear, the Secured Overnight Financing Rate as published in respect of the first preceding U.S. Government Securities Business Day for which the Secured Overnight Financing Rate was published on the Federal Reserve Bank of New York’s Website.

Compounded SOFR is a rate of return of a daily compounded interest investment calculated in accordance with the formula set forth below, with the resulting percentage being rounded, if necessary, to the nearest one hundred-thousandth of a percentage point (0.00000005 being rounded upwards):

$$\left[\prod_{i=1}^{d_0} \left(1 + \frac{SOFR_i \times n_i}{360} \right) - 1 \right] \times \frac{360}{d}$$

where for purposes of applying the above formula to the terms of the applicable floating rate debt security:

“ d_0 ”, for any observation period, is the number of U.S. government securities business days in the relevant observation period;

“ i ” is a series of whole numbers from one to d_0 , each representing the relevant U.S. government securities business day in chronological order from, and including, the first U.S. government securities business day in the relevant observation period;

“ $SOFR_i$ ”, for any day “ i ” in the relevant observation period, is equal to the SOFR in respect of that day;

“ n_i ”, for day “ i ” in the relevant observation period, is the number of calendar days from, and including, such U.S. government securities business day “ i ” up to, but excluding, the following U.S. government securities business day; and

“ d ” is the number of calendar days in the relevant observation period.

Notwithstanding the foregoing, if the calculation agent determines that a benchmark transition event and its related benchmark replacement date have occurred prior to the interest determination date in respect of any interest payment date, the benchmark replacement will replace the then-current benchmark for all purposes relating to the debt securities in respect of such determination on such date and all determinations on all subsequent dates.

In connection with the implementation of a benchmark replacement, the calculation agent will have the right to make benchmark replacement conforming changes from time to time.

Any determination, decision or election that may be made by the calculation agent pursuant to the provisions described in this section entitled “— Calculations of Interest on Debt Securities — Floating Rate Debt Securities — SOFR”, including any determination with respect to a rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain

from taking any action or any selection, will be conclusive and binding absent manifest error, may be made in the calculation agent's sole discretion, and, notwithstanding anything to the contrary in the documentation relating to the debt securities, shall become effective without consent from any other party.

The calculation agent's determination of any interest rate, and its calculation of the amount of interest for any observation period or interest period, will be on file at our principal offices and will be made available to any security holder upon request.

As used in this section entitled "— Calculations of Interest on Debt Securities — Floating Rate Debt Securities — SOFR":

The term "benchmark" means, initially, compounded SOFR, as defined above; provided that if a benchmark transition event and its related benchmark replacement date have occurred with respect to compounded SOFR or the then-current benchmark, then "benchmark" means the applicable benchmark replacement.

The term "benchmark replacement" means the first alternative set forth in the order below that can be determined by the calculation agent as of the benchmark replacement date:

- (1) the sum of: (a) the alternate rate of interest that has been selected or recommended by the relevant governmental body as the replacement for the then-current benchmark and (b) the benchmark replacement adjustment;
- (2) the sum of: (a) the ISDA fallback rate and (b) the benchmark replacement adjustment;
- (3) provided that if (i) the benchmark replacement cannot be determined in accordance with clause (1) or (2) above as of the benchmark replacement date or (ii) the calculation agent shall have determined that the ISDA fallback rate determined in accordance with clause (2) above is not an industry-accepted rate of interest as a replacement for the then-current benchmark for U.S. dollar-denominated floating rate debt securities at such time, then the benchmark replacement shall be the sum of: (a) the alternate rate of interest that has been selected by the calculation agent as the replacement for the then-current benchmark giving due consideration to any industry-accepted rate of interest as a replacement for the then-current benchmark for U.S. dollar-denominated floating rate debt securities at such time and (b) the benchmark replacement adjustment.

The term "benchmark replacement adjustment" means the first alternative set forth in the order below that can be determined by the calculation agent as of the benchmark replacement date:

- (1) the spread adjustment (which may be a positive or negative value or zero), or method for calculating or determining such spread adjustment, that has been selected or recommended by the relevant governmental body for the applicable unadjusted benchmark replacement;
- (2) if the applicable unadjusted benchmark replacement is equivalent to the ISDA fallback rate, then the ISDA fallback adjustment;
- (3) the spread adjustment (which may be a positive or negative value or zero) that has been selected by the calculation agent giving due consideration to any industry-accepted spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of the then-current benchmark with the applicable unadjusted benchmark replacement for U.S. dollar-denominated floating rate debt securities at such time.

The term "benchmark replacement conforming changes" means, with respect to any benchmark replacement, any technical, administrative or operational changes (including changes to the definitions

of “interest period”, “interest determination date” and “observation period”, timing and frequency of determining rates and making payments of interest, and other administrative matters) that the calculation agent decides may be appropriate to reflect the adoption of such benchmark replacement in a manner substantially consistent with market practice (or, if the calculation agent decides that adoption of any portion of such market practice is not administratively feasible or if the calculation agent determines that no market practice for use of the benchmark replacement exists, in such other manner as the calculation agent determines is reasonably necessary).

The term “benchmark replacement date” means the earliest to occur of the following events with respect to the then-current benchmark:

- (1) in the case of clause (1) or (2) of the definition of “benchmark transition event,” the later of (a) the date of the public statement or publication of information referenced therein and (b) the date on which the administrator of the benchmark permanently or indefinitely ceases to provide the benchmark; or
- (2) in the case of clause (3) of the definition of “benchmark transition event,” the date of the public statement or publication of information referenced therein.

For the avoidance of doubt, if the event giving rise to the benchmark replacement date occurs on the same day as the interest determination date, but earlier than the reference time on that date, the benchmark replacement date will be deemed to have occurred prior to the reference time for such determination.

For the avoidance of doubt, for purposes of the definitions of benchmark replacement date and benchmark transition event in this section entitled “— Calculations of Interest on Debt Securities — Floating Rate Debt Securities — SOFR”, references to benchmark also include any reference rate underlying such benchmark.

The term “benchmark transition event” means the occurrence of one or more of the following events with respect to the then-current benchmark:

- (1) a public statement or publication of information by or on behalf of the administrator of the benchmark announcing that such administrator has ceased or will cease to provide the benchmark, permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the benchmark;
- (2) a public statement or publication of information by the regulatory supervisor for the administrator of the benchmark, the central bank for the currency of the benchmark, an insolvency official with jurisdiction over the administrator for the benchmark, a resolution authority with jurisdiction over the administrator for the benchmark or a court or an entity with similar insolvency or resolution authority over the administrator for the benchmark, which states that the administrator of the benchmark has ceased or will cease to provide the benchmark permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the benchmark; or
- (3) a public statement or publication of information by the regulatory supervisor for the administrator of the benchmark announcing that the benchmark is no longer representative.

The term “Federal Reserve Bank of New York’s Website” means the website of the Federal Reserve Bank of New York at <http://www.newyorkfed.org>, or any successor source.

The term “interest determination date” means the date two U.S. government securities business days before each interest payment date.

The term “ISDA definitions” means the 2006 ISDA definitions published by the International Swaps and Derivatives Association, Inc. or any successor thereto, as amended or supplemented from time to time, or any successor definitional booklet for interest rate derivatives published from time to time.

The term “ISDA fallback adjustment” means the spread adjustment (which may be a positive or negative value or zero) that would apply for derivatives transactions referencing the ISDA definitions to be determined upon the occurrence of an index cessation event with respect to the benchmark for the applicable tenor.

The term “ISDA fallback rate” means the rate that would apply for derivatives transactions referencing the ISDA definitions to be effective upon the occurrence of an index cessation date with respect to the benchmark for the applicable tenor excluding the applicable ISDA fallback adjustment.

The term “observation period” means, in respect of each interest period, the period from, and including, the date two U.S. government securities business days preceding the first date in such interest period to, but excluding, the date two U.S. government securities business days preceding the interest payment date for such interest period.

The term “reference time” with respect to any determination of the benchmark means (1) if the benchmark is compounded SOFR, 3:00 p.m. (New York time) on the date of such determination, and (2) if the benchmark is not compounded SOFR, the time determined by the calculation agent in accordance with the benchmark replacement conforming changes.

The term “relevant governmental body” means the Federal Reserve Board and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Federal Reserve Board and/or the Federal Reserve Bank of New York or any successor thereto.

The term “unadjusted benchmark replacement” means the benchmark replacement excluding the benchmark replacement adjustment.

SOFR ICE Swap Rate. For floating rate debt securities for which the base rate is SOFR ICE swap rate, unless otherwise specified in your prospectus supplement, the SOFR ICE swap rate will be the offered rate appearing on the applicable Bloomberg screen page for U.S. dollar swaps having a maturity equal to the index maturity specified in your prospectus supplement, referencing the SOFR compounded in arrears for twelve months using standard market conventions, as of approximately 11:00 A.M., New York City time, on the relevant interest determination date. If the SOFR ICE swap rate cannot be determined in this manner on the relevant interest determination date, the following procedures will apply to your debt securities.

If the calculation agent determines on the applicable interest determination date that the SOFR ICE swap rate has been discontinued, then the calculation agent will use a substitute or successor base rate that it has determined in its sole discretion is most comparable to the SOFR ICE swap rate, provided that if the calculation agent determines there is an industry-accepted successor base rate, then the calculation agent shall use such successor base rate. If the calculation agent has determined a substitute or successor base rate in accordance with the foregoing, the calculation agent in its sole discretion may determine the applicable business day convention, the applicable business days and the applicable interest determination dates to be used, any other term specified in your prospectus supplement as subject to determination in this context, and any other relevant methodology for calculating such substitute or successor base rate, including any adjustment factor needed to make such substitute or successor base rate comparable to the SOFR ICE swap rate, in a manner that is consistent with any industry-accepted practices for such substitute or successor base rate.

Unless the calculation agent uses a substitute or successor base rate as so provided, if the SOFR ICE swap rate cannot be determined in the manner described above, the SOFR ICE swap rate for that interest determination date will be determined by the calculation agent, after consulting such sources as it deems comparable to the foregoing display page, or any other source it deems reasonable, in its sole discretion or as otherwise set forth in your prospectus supplement.

The SOFR ICE swap rate will be subject to the corrections, if any, published on the applicable Bloomberg screen page within one hour of the time that rate was first displayed on such source.

Prime Rate. For floating rate debt securities issued prior to July 1, 2020 for which the base rate is prime rate, the prime rate will be the rate, for the relevant interest reset date, published in H.15 Daily Update opposite the heading “Bank prime loan” (or in another recognized electronic source determined by the calculation agent in its sole discretion).

If the rate described above does not appear in H.15 Daily Update or another recognized electronic source by approximately 5:00 P.M., New York City time, on the day that is one New York City banking day following the relevant interest reset date, then the prime rate for the relevant interest reset date will be the rate for the day first preceding the relevant interest reset date for which such rate is set forth in H.15 Daily Update opposite the heading “Bank prime loan” (or in another recognized electronic source determined by the calculation agent in its sole discretion).

Treasury Rate.

Floating Rate Debt Securities Issued on or after July 1, 2020

For floating rate debt securities issued on or after July 1, 2020 for which the base rate is treasury rate, the treasury rate for the relevant interest reset date will be the rate for U.S. government treasury bills, as that rate appears on the Refinitiv page USAUCTION10 or USAUCTION11 on the relevant interest determination date, opposite the relevant index maturity specified in the applicable prospectus supplement under the heading “INVEST RATE”.

If the rate described above does not appear on either page on the relevant interest calculation date, unless the calculation is made earlier and the rate is available from one of those sources at that time, but U.S. government treasury bills having the specified index maturity have been auctioned during the relevant interest period, then the treasury rate will be the **bond equivalent yield** of the rate, for the relevant interest reset date, as published in H.15 Daily Update, or another recognized electronic source used for displaying that rate, for that day and for the specified index maturity, under a heading indicating that such rate is the “auction high” rate for United States treasury bills.

If the rate cannot be determined as described in the preceding paragraph, then the treasury rate will be the bond equivalent yield of the auction rate for treasury bills with a remaining maturity equal to the specified index maturity as announced by the United States Treasury.

If no such auction is held for the relevant week, the treasury rate will be the rate, for the relevant interest reset date and for treasury bills having the specified index maturity, as published in H.15 Daily Update, or another recognized electronic source used for displaying that rate, under the heading “U.S. government securities/Treasury bills (secondary market)”.

If the rate described in the prior paragraph does not appear in H.15 Daily Update or another recognized electronic source on the relevant interest calculation date (unless the calculation is made earlier and the rate is available from that source at that time), then the calculation agent, after consulting such sources as it deems comparable to any display page or other U.S. government

publication or source, or any other source as it deems reasonable from which to estimate the treasury bills auction rate, shall determine the treasury rate in its sole discretion, provided that if the calculation agent determines there is an industry-accepted successor treasury rate, then the calculation agent shall use such successor rate. If the calculation agent has determined a substitute or successor rate in accordance with the foregoing, the calculation agent in its sole discretion may determine the business day convention, the definition of business day and the interest reset date to be used and any other relevant methodology for calculating such substitute or successor rate, including any adjustment factor needed to make such substitute or successor rate comparable to the treasury rate, in a manner that is consistent with any industry-accepted practices for such substitute or successor rate.

Floating Rate Debt Securities Issued Prior to July 1, 2020

For floating rate debt securities issued prior to July 1, 2020 for which the base rate is treasury rate, the treasury rate for the relevant interest reset date will be the rate for U.S. government treasury bills, as that rate appears on the Refinitiv page USAUCTION10 or USAUCTION11 on the relevant interest determination date, opposite the relevant index maturity specified in the applicable prospectus supplement under the heading "INVEST RATE".

If the rate described above does not appear on either page on the relevant interest calculation date, unless the calculation is made earlier and the rate is available from one of those sources at that time, but U.S. government treasury bills having the specified index maturity have been auctioned during the relevant interest period, then the treasury rate will be the bond equivalent yield of the rate, for the relevant interest reset date, as published in H.15 Daily Update, or another recognized electronic source used for displaying that rate, for that day and for the specified index maturity, under a heading indicating that such rate is the "auction high" rate for United States treasury bills.

If the rate cannot be determined as described in the preceding paragraph, then the treasury rate will be the bond equivalent yield of the auction rate for treasury bills with a remaining maturity equal to the specified index maturity as announced by the United States Treasury.

If no such auction is held for the relevant week, the treasury rate will be the rate, for the relevant interest reset date and for treasury bills having the specified index maturity, as published in H.15 Daily Update, or another recognized electronic source used for displaying that rate, under the heading "U.S. government securities/Treasury bills (secondary market)".

If the rate described in the prior paragraph does not appear in H.15 Daily Update or another recognized electronic source on the relevant interest calculation date, unless the calculation is made earlier and the rate is available from that source at that time, the treasury rate will be the bond equivalent yield of the arithmetic mean of the following secondary market bid rates for the issue of treasury bills with a remaining maturity closest to the specified index maturity: the rates bid as of approximately 3:30 P.M., New York City time, on the relevant interest reset date, by primary U.S. government securities dealers in New York City selected by the calculation agent.

If no quotation is provided as described in the preceding paragraph, then the calculation agent, after consulting such sources as it deems comparable to any of the foregoing secondary market bids or any display page or other U.S. government publication or source, or any other source as it deems reasonable from which to estimate the treasury bills auction rate or any of the foregoing secondary market bid rates, shall determine the treasury rate for that interest reset date in its sole discretion.

Special Rate Calculation Terms. In this section entitled “— Floating Rate Debt Securities”, we use several terms that have special meanings relevant to calculating floating interest rates. We define these terms as follows:

The term “**Bloomberg screen page**” means the display on the Bloomberg Professional Service, or any successor or replacement service, on the page or pages specified in the applicable supplement, or any successor or replacement page on that service.

The term “**bond equivalent yield**” means a yield expressed as a percentage and calculated in accordance with the following formula:

$$\text{Bond Equivalent Yield} = \frac{D \times N}{360 - (D \times M)} \times 100$$

where:

- “D” means the annual rate for treasury bills quoted on a bank discount basis and expressed as a decimal;
- “N” means 365 or 366, as the case may be; and
- “M” means the actual number of days in the applicable interest reset period.

The term “**designated CMT index maturity**” means the index maturity for CMT rate debt securities and will be the original period to maturity of a U.S. Treasury security — either 1, 2, 3, 5, 7, 10, 20 or 30 years — specified in the applicable prospectus supplement. If no such original maturity period is so specified, the designated CMT index maturity will be 2 years.

The term “**designated CMT Refinitiv page**” means the Refinitiv page specified in your prospectus supplement that displays Treasury constant maturities as published by the Federal Reserve System Board of Governors, or its successor, on its website. If no Refinitiv page is so specified, then the applicable page will be the Refinitiv page FRBCMT.

The term “**euro-zone**” means, at any time, the region comprised of the member states of the European Economic and Monetary Union, or any successor union, that, as of that time, have adopted a single currency in accordance with the Treaty on European Union of February 1992, or any successor treaty.

The term “**H.15 Daily Update**” means the daily statistical release designated as such published by the Federal Reserve System Board of Governors, or its successor, available through the website of the Board of Governors of the Federal Reserve System at <https://www.federalreserve.gov/releases/h15/>, or any successor site or publication.

The term “**index currency**” means the currency specified as such in the applicable prospectus supplement. The index currency may be U.S. dollars or any other currency, and will be U.S. dollars unless another currency is specified in the applicable prospectus supplement.

The term “**index maturity**” means, with respect to floating rate debt securities, the period to maturity of the instrument or obligation on which the interest rate formula is based, as specified in the applicable prospectus supplement.

The term “**representative amount**” means an amount that, in the calculation agent’s judgment, is representative of a single transaction in the relevant market at the relevant time.

The term “**Refinitiv page**” means the display on the Refinitiv Eikon service, or any successor or replacement service, on the page or pages specified in this prospectus, the applicable prospectus supplement, or any successor or replacement page or pages on that service.

Calculation Agent. Calculations relating to interest on floating rate debt securities will be made by the calculation agent, an institution that we appoint as our agent for this purpose. That institution may include any affiliate of ours, such as GS&Co. The prospectus supplement for a particular floating rate debt security or series of debt securities will name the institution that we have appointed to act as the calculation agent for that debt security as of its original issue date. Unless otherwise specified in the applicable prospectus supplement, we have initially appointed GS&Co. as calculation agent for all the floating rate debt securities that we may issue hereunder. We may appoint a different institution to serve as calculation agent from time to time after the original issue date of the debt security without your consent and without notifying you of the change. 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.

Redemption and Repayment

Unless otherwise indicated in your prospectus supplement, your debt security will not be entitled to the benefit of any sinking fund — that is, we or The Goldman Sachs Group, Inc. will not deposit money on a regular basis into any separate custodial account to repay your debt securities. In addition, we will not be entitled to redeem your debt security before its stated maturity unless your prospectus supplement specifies a redemption commencement date. You will not be entitled to require us to buy your debt security from you, before its stated maturity, unless your prospectus supplement specifies one or more repayment dates.

If your prospectus supplement specifies a redemption commencement date or a repayment date, it may also specify one or more redemption prices or repayment prices, which may be expressed as a percentage of the principal amount of your debt security. It may also specify one or more redemption periods during which the redemption prices relating to a redemption of debt securities during those periods will apply.

If your prospectus supplement specifies a repayment date, your debt security will be repayable at the holder’s option on the specified repayment date at the specified repayment price, together with interest accrued to but excluding the repayment date.

If a debt security represented by a global debt security is subject to repayment at the holder’s option, the depositary or its nominee, as the holder, will be the only person that can exercise the right to repayment. Any indirect owners who own beneficial interests in the global debt security and wish to exercise a repayment right must give proper and timely instructions to their banks or brokers through which they hold their interests, requesting that they notify the depositary to exercise the repayment right on their behalf. Different firms have different deadlines for accepting instructions from their customers, and you should take care to act promptly enough to ensure that your request is given effect by the depositary before the applicable deadline for exercise.

Tax redemption. If your prospectus supplement specifies that we will pay additional amounts with respect to your debt securities, as described below under “— Payment of Additional Amounts”, we will be entitled, at our option, to redeem the outstanding debt securities in whole and not in part if at any time we become obligated to pay additional amounts on your debt securities on the next date on which payments are made, but only if our obligation results from a change in the laws or regulations of any U.S. taxing authority (as defined below in “— Payment of Additional Amounts”), or from a change in any official interpretation or application of those laws or regulations, that becomes effective or is announced on or after the date of your prospectus supplement, unless another date is specified.

If we redeem your debt securities because we have become obligated to pay additional amounts, we will do so at a redemption price equal to 100% of the principal amount of the debt securities redeemed *plus* accrued interest to the redemption date.

If we become entitled to redeem your debt securities because we have become obligated to pay additional amounts, we may do so at any time on a redemption date of our choice. However, we must give the holders of the debt securities being redeemed notice of the redemption not less than 30 days or more than 60 days before the redemption date and not more than 90 days before the next date on which we would be obligated to pay additional amounts. In addition, our obligation to pay additional amounts must remain in effect when we give the notice of redemption. We will give the notice in the manner described below under “— Notices”.

Optional redemption. If your prospectus supplement specifies that redemption at our option is applicable to your debt securities and that a make-whole redemption applies, and unless your prospectus supplement specifies different terms relating to redemption at our option or notice periods:

- (1) we may redeem your debt securities in whole at any time or in part from time to time, prior to a specified final redemption date, upon (i) in the case of debt securities issued prior to July 1, 2020 (which for this purpose shall also include new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes), not less than 30 days' nor more than 60 days' prior written notice or (ii) in the case of debt securities issued on or after July 1, 2020 (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes), not less than 15 days' nor more than 60 days' prior written notice, at a redemption price equal to the greater of (A) 100% of the principal amount of the debt securities to be redeemed or (B) as determined by the quotation agent described below, the sum of the present values of the remaining scheduled payments of principal and interest on the debt securities to be redeemed, not including any portion of these payments of interest accrued as of the date on which the debt securities are to be redeemed, discounted to the date on which the debt securities are to be redeemed on a semi-annual basis, applying the 30/360 (ISDA) day count convention described above, at the treasury rate (as described below) plus a spread to be specified in the prospectus supplement, plus, in each case, accrued and unpaid interest to but excluding the redemption date; and
- (2) we may redeem your debt securities in whole at any time or in part from time to time, on or after the specified final redemption date, upon (i) in the case of debt securities issued prior to July 1, 2020 (which for this purpose shall also include new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes), not less than 30 days' nor more than 60 days' prior written notice or (ii) in the case of debt securities issued on or after July 1, 2020 (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes), not less than 15 days' nor more than 60 days' prior written notice, at a redemption price equal to 100% of the principal amount of the debt securities being redeemed plus accrued and unpaid interest to but excluding the redemption date.

If your prospectus supplement specifies that redemption at our option is applicable to your debt securities but does not specify that a make-whole redemption applies, and unless your prospectus supplement specifies different terms relating to redemption at our option or notice periods, we may redeem your debt securities in whole at any time or in part from time to time, upon (i) in the case of debt securities issued prior to July 1, 2020 (which for this purpose shall also include new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes), not less than 30 days' nor more than 60 days' prior written notice or (ii) in the case of debt securities issued on or after July 1, 2020 (other than new issuances of Series E Medium-Term Notes or

reopenings of previously issued Series E Medium-Term Notes), not less than 15 days' nor more than 60 days' prior written notice, at a redemption price equal to 100% of the principal amount of the debt securities being redeemed plus accrued and unpaid interest to but excluding the redemption date.

The "treasury rate" will be:

- the average of the yields for the five business days prior to the date of calculation, appearing in the most recently published statistical release appearing on the website of the Board of Governors of the Federal Reserve System or in another recognized electronic source, in each case as determined by the quotation agent in its sole discretion and which establishes yields on actively traded U.S. Treasury securities adjusted to constant maturity for the maturity most closely corresponding to the remaining term of the debt securities to be redeemed, or if no maturity is within three months before or after this time period, yields for the two published maturities most closely corresponding to this time period will be determined and the treasury rate will be interpolated or extrapolated from those yields on a straight-line basis, rounding to the nearest month; or
- if the release or any successor release is not published during the five business days preceding the calculation date or does not contain such yields, the annual rate equal to the semi-annual equivalent yield to maturity of the comparable treasury issue (as described below), calculated using a price for the comparable treasury issue, expressed as a percentage of its principal amount, equal to the comparable treasury price (as described below) for the redemption date.

The treasury rate will be calculated on the third business day preceding the redemption date.

Unless otherwise specified in your prospectus supplement, we will initially appoint GS&Co. or its successor to act as our quotation agent. However, if GS&Co. ceases to be a primary U.S. Government securities dealer in New York City, we will appoint another primary U.S. Government securities dealer as our quotation agent.

The "comparable treasury issue", with respect to any redemption date, means the United States Treasury security selected by the quotation agent as being the most recently issued United States Treasury note or bond as displayed by Bloomberg L.P. (or any successor service) on screens PX1 through PX8 (or any other screens as may replace such screens on such service) that has a remaining term comparable to the remaining term of the debt securities to be redeemed.

The "comparable treasury price", with respect to any redemption date, will be (1) the average of five reference treasury dealer quotations (as described below) for such redemption date, after excluding the highest and lowest of such reference treasury dealer quotations, or (2) if the quotation agent obtains fewer than five such reference treasury dealer quotations, the average of all such quotations.

The "reference treasury dealer quotations", with respect to each reference treasury dealer (as described below) and any redemption date, means the average, as determined by the quotation agent, of the bid and ask prices for the comparable treasury issue, expressed in each case as a percentage of its principal amount, quoted in writing to the quotation agent by such reference treasury dealer at 5:00 p.m., New York City time, on the third business day preceding such redemption date.

The "reference treasury dealer" will be (1) the quotation agent or (2) any other primary U.S. Government securities dealer selected by the quotation agent after consultation with us.

If we exercise an option to redeem any debt security, we will give to the holder written notice of the principal amount of the debt security to be redeemed, not less than 30 days nor more than 60 days

before the applicable redemption date, unless your prospectus supplement provides a different notice period. We will give the notice in the manner described below in “— Notices”.

Street name and other indirect owners should contact their banks or brokers for information about how to exercise a repayment right in a timely manner.

We, The Goldman Sachs Group, Inc. or our other affiliates may purchase debt securities from investors who are willing to sell from time to time, either in the open market at prevailing prices or in private transactions at negotiated prices. Debt securities that we or they purchase may, at our discretion, be held, resold or canceled.

Mergers and Similar Transactions

If you are the holder of senior debt securities issued under the 2007 GSFC indenture, then all references to “series” under this subsection entitled “Mergers and Similar Transactions” shall also refer to any “tranche” with respect to your debt securities issued under the 2007 GSFC indenture.

We are, and The Goldman Sachs Group, Inc. is, generally permitted to merge or consolidate with another corporation or other entity. We are, and The Goldman Sachs Group, Inc. is, also permitted to sell our or its assets substantially as an entirety to another corporation or other entity. With regard to any series of debt securities, however, we or The Goldman Sachs Group, Inc. may not take any of these actions unless all the following conditions are met:

- If the successor entity in the transaction is not GS Finance Corp. or The Goldman Sachs Group, Inc., as the case may be, the successor entity must be organized as a corporation, partnership or trust and must expressly assume our or The Goldman Sachs Group, Inc.’s obligations under the debt securities of that series and the underlying debt indenture with respect to that series. The successor entity may be organized under the laws of any jurisdiction, whether in the United States or elsewhere.
- Immediately after the transaction, no default under the debt securities of that series or the related guarantees has occurred and is continuing. For this purpose, “default under the debt securities of that series or the related guarantees” means an event of default (or, with respect to any series of securities issued on or after July 1, 2020 (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes) under the 2008 GSFC indenture, a covenant breach) with respect to that series or any event that would be an event of default (or covenant breach) with respect to that series if the requirements for giving us or The Goldman Sachs Group, Inc. default (or breach) notice and for our default (or breach) having to continue for a specific period of time were disregarded. We describe these matters below under “— Default, Remedies and Waiver of Default”. What constitutes an event of default under the 2007 GSFC debt indenture varies substantially from what constitutes an event of default under the 2008 GSFC indenture and the subordinated debt indenture.

If the conditions described above are satisfied with respect to the debt securities of any series, neither we nor The Goldman Sachs Group, Inc. will need to obtain the approval of the holders of those debt securities in order to merge or consolidate or to sell our or The Goldman Sachs Group, Inc.’s assets. Also, these conditions will apply only if we or The Goldman Sachs Group, Inc. wishes to merge or consolidate with another entity or sell our or The Goldman Sachs Group, Inc.’s assets substantially as an entirety to another entity. Neither we nor The Goldman Sachs Group, Inc. will need to satisfy these conditions if we or The Goldman Sachs Group, Inc. enters into other types of transactions,

including any transaction in which we or The Goldman Sachs Group, Inc. acquire the stock or assets of another entity, any transaction that involves a change of control of us or The Goldman Sachs Group, Inc. but in which we or The Goldman Sachs Group, Inc. does not merge or consolidate and any transaction in which we or The Goldman Sachs Group, Inc. sells less than substantially all our or The Goldman Sachs Group, Inc.'s assets. While we are currently a wholly owned subsidiary of The Goldman Sachs Group, Inc., there is no requirement that we remain a subsidiary.

Also, if we or The Goldman Sachs Group, Inc. merges, consolidates or sells our or The Goldman Sachs Group, Inc.'s assets substantially as an entirety and the successor is a non-U.S. entity, neither we nor The Goldman Sachs Group, Inc. nor any successor would have any obligation to compensate you for any resulting adverse tax consequences relating to your debt securities.

Notwithstanding the foregoing and for the avoidance of doubt, with regard to any securities of any series issued on or after July 1, 2020 (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes) under the 2008 GSFC indenture or any securities of any series issued under the subordinated debt indenture, we may sell or transfer our assets substantially as an entirety, in one or more transactions, to one or more entities, provided that our assets and the assets of our direct or indirect subsidiaries in which we own a majority of the combined voting power, taken together, are not sold or transferred substantially as an entirety to one or more entities that are not majority-owned subsidiaries of The Goldman Sachs Group, Inc., and The Goldman Sachs Group, Inc. may sell or transfer its assets substantially as an entirety in one or more transactions, to one or more entities, provided that the assets of The Goldman Sachs Group, Inc. and its direct or indirect subsidiaries in which it owns a majority of the combined voting power, taken together, are not sold or transferred substantially as an entirety to one or more entities that are not such subsidiaries.

Subordination Provisions

Holders of subordinated debt securities should recognize that contractual provisions in the subordinated debt indenture may prohibit us and The Goldman Sachs Group, Inc. from making payments on those securities. Subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner stated in the subordinated debt indenture, to all of our senior indebtedness, as will be defined in the subordinated debt indenture, including all debt securities we have issued and will issue under either of the senior debt indentures and all warrants that we will issue under the warrant indenture.

The subordinated debt indenture will define "senior indebtedness" as all indebtedness and obligations of, or guaranteed or assumed by, us or The Goldman Sachs Group, Inc. for borrowed money or evidenced by bonds, debentures, notes or other similar instruments, whether existing now or in the future, and all amendments, renewals, extensions, modifications and refundings of any indebtedness or obligations of that kind. Senior debt excludes the subordinated debt securities and any other indebtedness or obligations specifically designated as being subordinate, or not superior, in right of payment to the subordinated debt securities.

We may modify the subordination provisions, including the definition of senior indebtedness, with respect to one or more series of subordinated debt securities. For a description of these modifications, see the applicable prospectus supplement.

The subordinated debt indenture will provide that, unless all principal of and any premium or interest on the senior indebtedness of us or The Goldman Sachs Group, Inc. has been paid in full, no

payment or other distribution by us or The Goldman Sachs Group, Inc. as the case may be, may be made in respect of any subordinated debt securities in the following circumstances:

- in the event of any insolvency or bankruptcy proceedings, or any receivership, liquidation, reorganization, assignment for creditors or other similar proceedings or events involving us or The Goldman Sachs Group, Inc. or our or its assets;
- (a) in the event and during the continuation of any default in the payment of principal, premium or interest on any senior indebtedness of us or The Goldman Sachs Group, Inc. beyond any applicable grace period or (b) in the event that any event of default with respect to any such senior indebtedness has occurred and is continuing, permitting the holders of that senior indebtedness (or a trustee) to accelerate the maturity of that senior indebtedness, whether or not the maturity is in fact accelerated (unless, in the case of (a) or (b), the payment default or event of default has been cured or waived or ceased to exist and any related acceleration has been rescinded) or (c) in the event that any judicial proceeding is pending with respect to a payment default or event of default described in (a) or (b); or
- in the event that any of our subordinated debt securities or that of The Goldman Sachs Group, Inc. has been declared due and payable before their stated maturity.

If the trustee under the subordinated debt indenture or any holders of the subordinated debt securities receive any payment or distribution that is prohibited under the subordination provisions, then the trustee or the holders will have to repay that money to the holders of the senior indebtedness.

Even if the subordination provisions will prevent us or The Goldman Sachs Group, Inc. from making any payment when due on the subordinated debt securities of any series or related guarantees, we or The Goldman Sachs Group, Inc., as the case may be, will be in default on our or its obligations under that series if we or The Goldman Sachs Group, Inc. do not make the payment when due. This means that the trustee under the subordinated debt indenture and the holders of that series can take action against us, but they will not receive any money until the claims of the holders of senior indebtedness have been fully satisfied.

The subordinated debt indenture will allow the holders of senior indebtedness to obtain a court order requiring us or The Goldman Sachs Group, Inc. and any holder of subordinated debt securities to comply with the subordination provisions.

Restriction on Liens

If you are the holder of senior debt securities issued under the 2007 GSFC indenture, then all references to “series” under this subsection entitled “Restriction on Liens” shall also refer to any “tranche” with respect to your debt securities issued under the 2007 GSFC indenture.

In each of the senior debt indentures, The Goldman Sachs Group, Inc. promises, with respect to each series of senior debt securities, not to create, assume, incur or guarantee any debt for borrowed money that is secured by a lien on the voting or profit participating equity ownership interests that The Goldman Sachs Group, Inc. or any of its subsidiaries own in GS&Co., or in any subsidiary of The Goldman Sachs Group, Inc. that beneficially owns or holds, directly or indirectly, those interests in GS&Co., unless The Goldman Sachs Group, Inc. also secures the senior debt securities of that series on an equal or priority basis with the other secured debt. The promise of The Goldman Sachs Group, Inc., however, is subject to an important exception: it may secure debt for borrowed money with liens on those interests without securing the senior debt securities of any series if its board of directors determines that the liens do not materially detract from or interfere with the value or control of those interests, as of the date of the determination.

The subordinated debt indenture will not include the promise described in the preceding paragraph.

Except as noted above, none of the debt indentures restricts The Goldman Sachs Group, Inc.'s ability to put liens on its interests in its subsidiaries other than GS&Co., nor do the debt indentures restrict The Goldman Sachs Group, Inc.'s ability to sell or otherwise dispose of its interests in any of its subsidiaries, including GS&Co. In addition, the restriction on liens in the senior debt indenture applies only to liens that secure debt for borrowed money. For example, liens imposed by operation of law, such as liens to secure statutory obligations for taxes or workers' compensation benefits, or liens The Goldman Sachs Group, Inc. creates to secure obligations to pay legal judgments or surety bonds, would not be covered by this restriction.

Defeasance and Covenant Defeasance

Unless we say otherwise in the applicable prospectus supplement, the provisions for full defeasance and covenant defeasance described below apply to each senior and subordinated debt security and the guarantee thereof. In general, we expect these provisions to apply to each debt security that has a specified currency of U.S. dollars and is not an indexed debt security.

Full Defeasance. If there is a change in U.S. federal tax law, as described below, we and The Goldman Sachs Group, Inc. can legally release ourselves from all payment and other obligations on any debt securities and the guarantees thereof. This is called full defeasance. For us and The Goldman Sachs Group, Inc. to do so, each of the following must occur:

- We or The Goldman Sachs Group, Inc. must deposit in trust for the benefit of all holders of those debt securities (and the guarantees thereof) money or a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on those debt securities on their various due dates;
- There must be a change in current U.S. federal tax law or a United States Internal Revenue Service ruling that lets us or The Goldman Sachs Group, Inc. make the above deposit without causing the holders to be taxed on those debt securities any differently than if we or The Goldman Sachs Group, Inc. did not make the deposit and just repaid those debt securities ourselves or itself. Under current federal tax law, the deposit and our and The Goldman Sachs Group, Inc.'s legal release from your debt security and guarantee on such debt security would be treated as though we and The Goldman Sachs Group, Inc. took back your debt security and guarantee on such debt security and gave you your share of the cash and notes or bonds deposited in trust. In that event, you could recognize gain or loss on your debt security and guarantee on such debt security;
- We or The Goldman Sachs Group, Inc. must deliver to the trustee a legal opinion of our counsel confirming the tax law change described above; and
- In the case of the subordinated debt securities, the following requirements must also be met:
 - No event or condition may exist that, under the provisions described under "— Subordination Provisions" above, would prevent us or The Goldman Sachs Group, Inc. from making payments of principal, premium or interest on those subordinated debt securities on the date of the deposit referred to above or during the 90 days after that date; and
 - We or The Goldman Sachs Group, Inc. must deliver to the trustee an opinion of counsel to the effect that (a) the trust funds will not be subject to any rights of holders of senior indebtedness and (b) after the 90-day period referred to above, the trust funds will not be

subject to any applicable bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally, except that if a court were to rule under any of those laws in any case or proceeding that the trust funds remained our property, then the relevant trustee and the holders of the subordinated debt securities would be entitled to some enumerated rights as secured creditors in the trust funds.

If we or The Goldman Sachs Group, Inc. ever fully defeased your debt security and guarantee on such debt security, you would have to rely solely on the trust deposit for payments on your debt security and guarantee on such debt security. You would not be able to look to us or The Goldman Sachs Group, Inc. for payment in the event of any shortfall.

Covenant Defeasance. Under current U.S. federal tax law, we can make the same type of deposit described above and be released from the restriction on liens (in case of The Goldman Sachs Group, Inc.) described under “— Restriction on Liens” above and any other restrictive covenants relating to your debt security and guarantee on such debt security that may be described in your prospectus supplement. This is called covenant defeasance. In that event, you would lose the protection of those restrictive covenants. In order to achieve covenant defeasance for any debt securities and guarantees thereof, we or The Goldman Sachs Group, Inc. must do both of the following:

- We or The Goldman Sachs Group, Inc. must deposit in trust for the benefit of the holders of those debt securities (and the guarantees thereof) money or a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on those debt securities on their various due dates; and
- We or The Goldman Sachs Group, Inc. must deliver to the trustee a legal opinion of our counsel confirming that under current U.S. federal income tax law we may make the above deposit without causing the holders to be taxed on those debt securities any differently than if we or The Goldman Sachs Group, Inc. did not make the deposit and just repaid those debt securities ourselves.

In addition, in order to achieve covenant defeasance for any subordinated debt securities that have the benefit of any restrictive covenants, both conditions described in the last bullet point under “— Full Defeasance” above must be satisfied. Subordinated debt securities will not have the benefit of any restrictive covenants unless the applicable prospectus supplement specifically provides that they do.

If we or The Goldman Sachs Group, Inc. accomplish covenant defeasance with regard to your debt security and the guarantee on such debt security, the following provisions of the applicable debt indenture and your debt security and guarantee on such debt security would no longer apply:

- If your debt security is a senior debt security, the promise by The Goldman Sachs Group, Inc. not to create liens on its voting or profit participating equity ownership interests in GS&Co. described above under “— Restriction on Liens”;
- Any additional covenants that your prospectus supplement may state are applicable to your debt security; and
- The events of default or covenant breaches resulting from a breach of covenants, described below in the fourth bullet point under “— Default, Remedies and Waiver of Default — Events of Default” and “— Covenant Breaches”.

Any right we have to redeem will survive covenant defeasance with regard to those debt securities.

If we or The Goldman Sachs Group, Inc. accomplish covenant defeasance on your debt security and guarantee on such debt security, you can still look to us or The Goldman Sachs Group, Inc. for repayment of your debt security or guarantee on such debt security in the event of any shortfall in the trust deposit. You should note, however, that if one of the remaining events of default occurred, such as our bankruptcy (or, in the case of the 2007 GSFC indenture only, The Goldman Sachs Group, Inc.'s bankruptcy) and your debt security became immediately due and payable, there may be a shortfall. Depending on the event causing the default, you may not be able to obtain payment of the shortfall.

Default, Remedies and Waiver of Default

You will have special rights if an event of default or a covenant breach with respect to your series (or your tranche, in the case of senior debt securities issued under the 2007 GSFC indenture) of debt securities occurs and is continuing, as described in this subsection.

For securities issued under the 2008 GSFC indenture on or after July 1, 2020 (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes), and solely for the purposes of this section entitled “—Default, Remedies and Waiver of Default”, the term “series” refers to debt securities with the same CUSIP number.

Events of Default

Securities Issued Under the 2007 GSFC Indenture

Unless your prospectus supplement says otherwise, when we refer to an event of default with respect to any tranche of debt securities issued under the 2007 GSFC indenture, we mean any of the following:

- We or The Goldman Sachs Group, Inc. does not pay the principal or any premium on any debt security of that tranche on the due date;
- We or The Goldman Sachs Group, Inc. does not pay interest on any debt security of that tranche within 30 days after the due date;
- We or The Goldman Sachs Group, Inc. does not deposit a sinking fund payment with regard to any debt security of that tranche on the due date, but only if the payment is required under provisions described in the applicable prospectus supplement;
- The Goldman Sachs Group, Inc. remains in breach of its covenant described above under “— Restriction on Liens”, or we remain in breach of any other covenant we or The Goldman Sachs Group, Inc. makes in the debt indenture for the benefit of the relevant tranche, for 60 days after we and The Goldman Sachs Group, Inc. receive a notice of default stating that we or The Goldman Sachs Group, Inc. is in breach and requiring us or The Goldman Sachs Group, Inc. to remedy the breach, as applicable. The notice must be sent by the trustee or the holders of at least 10% in principal amount of the relevant tranche of debt securities then outstanding;
- We or The Goldman Sachs Group, Inc. files for bankruptcy or other events of bankruptcy, insolvency or reorganization relating to us or The Goldman Sachs Group, Inc. occur. Those events must arise under U.S. federal or state law, unless we or The Goldman Sachs Group, Inc. merges, consolidates or sells our or its assets as described above and the successor firm is a non-U.S. entity. If that happens, then those events must arise under U.S. federal or state law or the law of the jurisdiction in which the successor firm is legally organized;
- Except as provided by the relevant indenture, the debt security of that tranche and the related guarantee, the guarantee ceases to be effective, or a court finds the guarantee to be

unenforceable or invalid, or The Goldman Sachs Group, Inc. denies its obligations as the guarantor; or

- If the applicable prospectus supplement states that any additional event of default applies to the tranche, that event of default occurs.

Securities Issued Under the 2008 GSFC Indenture

Unless your prospectus supplement says otherwise, when we refer to an event of default with respect to the debt securities of any series issued on or after July 1, 2020 under the 2008 GSFC indenture (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes) or the subordinated debt indenture, we mean any of the following:

- We or the Goldman Sachs Group, Inc. does not pay the principal or any premium on any debt security of that series within 30 days after the due date;
- We or the Goldman Sachs Group, Inc. does not pay interest on any debt security of that series within 30 days after the due date;
- We file for bankruptcy or other events of bankruptcy, insolvency or reorganization relating to us occur. Those events must arise under U.S. federal or state law, unless we merge, consolidate or sell our assets as described above and the successor firm is a non-U.S. entity. If that happens, then those events must arise under U.S. federal or state law or the law of the jurisdiction in which the successor firm is legally organized; or
- If the applicable prospectus supplement states that any additional event of default applies to the series, that event of default occurs.

For securities issued under the 2008 GSFC indenture on or after July 1, 2020 (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes), no other defaults under or breaches of the 2008 GSFC indenture or any securities will result in an event of default, whether after notice, the passage of time or otherwise. However, certain events may give rise to a covenant breach, as described below under “— Covenant Breaches”.

We may change, eliminate or add to the events of default with respect to any particular series or any particular debt security or debt securities within a series, as indicated in the applicable prospectus supplement.

Unless your prospectus supplement says otherwise, when we refer to an event of default with respect to any series of debt securities issued before July 1, 2020 or with respect to issuances of Series E Medium-Term Notes on or after July 1, 2020 or reopenings of previously issued Series E Medium-Term Notes, in each case under the 2008 GSFC indenture, we mean any of the following:

- We or The Goldman Sachs Group, Inc. does not pay the principal or any premium on any debt security of that series on the due date;
- We or The Goldman Sachs Group, Inc. does not pay interest on any debt security of that series within 30 days after the due date;
- We or The Goldman Sachs Group, Inc. does not deposit a sinking fund payment with regard to any debt security of that series on the due date, but only if the payment is required under provisions described in the applicable prospectus supplement;
- We remain in breach of any other covenant we make in the debt indenture for the benefit of the relevant series, for 60 days after we and The Goldman Sachs Group, Inc. receive a notice

of default stating that we are in breach and requiring us to remedy the breach. The notice must be sent by the trustee or the holders of at least 10% in principal amount of the relevant series of debt securities then outstanding;

- We file for bankruptcy or other events of bankruptcy, insolvency or reorganization relating to us occur. Those events must arise under U.S. federal or state law, unless we merge, consolidate or sell our assets as described above and the successor firm is a non-U.S. entity. If that happens, then those events must arise under U.S. federal or state law or the law of the jurisdiction in which the successor firm is legally organized;
- Except as provided by the relevant indenture, the debt security of that series and the related guarantee, the guarantee ceases to be effective, or a court finds the guarantee to be unenforceable or invalid, or The Goldman Sachs Group, Inc. denies its obligations as the guarantor; or
- If the applicable prospectus supplement states that any additional event of default applies to the series, that event of default occurs.

We may change, eliminate or add to the events of default with respect to any particular tranche or series, as applicable, or any particular debt security or debt securities within a tranche or series, as applicable, as indicated in the applicable prospectus supplement.

Unless your prospectus supplement says otherwise, although certain events of bankruptcy, insolvency or reorganization relating to The Goldman Sachs Group, Inc. (the guarantor) will constitute an event of default with respect to any tranche of debt securities issued under the 2007 GSFC indenture, such events relating to The Goldman Sachs Group, Inc. will not constitute an event of default with respect to any series of debt securities issued under the 2008 GSFC indenture or the subordinated debt indenture. Similarly, unless your prospectus supplement says otherwise, although a breach of a covenant or warranty by The Goldman Sachs Group, Inc. under the 2007 GSFC indenture may constitute an event of default with respect to a tranche of debt securities issued under the 2007 indenture, any breach of a covenant or warranty by The Goldman Sachs Group, Inc. under the 2008 GSFC indenture or the subordinated debt indenture (in each case, other than the breach of any covenant or warranty that is specified therein as an event of default) will not constitute an event of default or potential event of default with respect to any series of debt securities issued under the 2008 GSFC indenture or the subordinated debt indenture, as applicable. Therefore, as described below under "Remedies If an Event of Default or Covenant Breach Occurs", under the 2008 GSFC indenture or the subordinated debt indenture, events of bankruptcy, insolvency or reorganization relating to The Goldman Sachs Group, Inc. will not cause any of GSFC's debt securities issued under such indentures to be automatically accelerated. In the event that The Goldman Sachs Group, Inc. becomes subject to certain events of bankruptcy, insolvency or reorganization (but GSFC does not), any series of debt securities issued under the 2008 GSFC indenture or the subordinated debt indenture will not be immediately due and repayable. In addition, under the 2008 GSFC indenture or the subordinated debt indenture, a breach of a covenant or warranty by The Goldman Sachs Group, Inc. (including, for example, a breach of The Goldman Sachs Group, Inc.'s covenants and warranties with respect to mergers and similar transactions or, in the case of the senior 2008 GSFC indenture only, restrictions on liens, described above under "Mergers and Similar Transactions" and "Restriction on Liens", respectively) will not have the potential to cause any of GSFC's debt securities issued under the applicable indenture to be declared due and payable immediately. Instead, under the 2008 GSFC indenture or the subordinated debt indenture, the trustee or you will need to wait until the earlier of the time that (i) GSFC itself becomes subject to certain events of bankruptcy, insolvency or reorganization or otherwise defaults on the terms of the debt securities, (ii) The Goldman Sachs Group, Inc. otherwise defaults on the terms of the debt securities and (iii) the final maturity of the debt securities. The return you receive on any series of debt securities issued under the 2008 GSFC indenture or the

subordinated debt indenture may be significantly less than what you would have otherwise received had the debt securities been automatically accelerated upon certain events of bankruptcy, insolvency or reorganization relating to The Goldman Sachs Group, Inc. or declared due and payable immediately following the breach of a covenant or warranty by The Goldman Sachs Group, Inc.

Covenant Breaches

Unless your prospectus supplement says otherwise, when we refer to a covenant breach with respect to the debt securities of any series issued on or after July 1, 2020 (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes) under the 2008 GSFC indenture and the subordinated debt indenture, we mean the following:

- We or The Goldman Sachs Group, Inc. does not deposit a sinking fund payment with regard to any debt security of that series on the due date, but only if the payment is required under provisions described in the applicable prospectus supplement;
- We remain in breach of any covenant we make in the debt indenture for the benefit of that series, for 60 days after we and The Goldman Sachs Group, Inc. receive a notice of covenant breach stating that we are in breach and requiring us to remedy the breach. The notice must be sent by the trustee or the holders of at least 10% in principal amount of that series of debt securities then outstanding; or
- Except as provided by the relevant indenture, the debt security of that series and the related guarantee, the guarantee ceases to be effective, or a court finds the guarantee to be unenforceable or invalid, or The Goldman Sachs Group, Inc. denies its obligations as the guarantor.

We may change the definition of covenant breach with respect to any particular series or any particular debt security or debt securities within a series, as indicated in the applicable prospectus supplement. A covenant breach shall not be an event of default with respect to any security.

Remedies If an Event of Default or Covenant Breach Occurs

If you are the holder of a subordinated debt security, all the remedies available upon the occurrence of an event of default under the subordinated debt indenture will be subject to the restrictions on the subordinated debt securities described above under “— Subordination Provisions”.

If you are the holder of senior debt securities issued under the 2007 GSFC indenture, then all references to “series” under this subsection entitled “Remedies If an Event of Default or Covenant Breach Occurs” shall instead mean “tranche” with respect to your debt securities issued under the 2007 GSFC indenture.

Except as otherwise specified in the applicable prospectus supplement, if an event of default has occurred with respect to any series of debt securities and has not been cured or waived, the trustee or the holders of not less than 25% in principal amount of all debt securities of that series then outstanding may declare the entire principal amount of the debt securities of that series to be due immediately. Except as otherwise specified in the applicable prospectus supplement, if the event of default occurs because of events in bankruptcy, insolvency or reorganization relating to us (or, in the case of the 2007 GSFC indenture only, The Goldman Sachs Group, Inc.), the entire principal amount of the debt securities of that series will be automatically accelerated, without any action by the trustee or any holder.

Each of the situations described above is called an acceleration of the stated maturity of the affected series of debt securities. Except as otherwise specified in the applicable prospectus

supplement, if the stated maturity of any series is accelerated and a judgment for payment has not yet been obtained, the holders of a majority in principal amount of the debt securities of that series may cancel the acceleration for the entire series.

For debt securities issued on or after July 1, 2020 (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes) under the 2008 GSFC indenture, acceleration will not be permitted for reasons other than a specified payment default or insolvency event that constitutes an event of default in respect of such securities. Neither the trustee nor any holders of such securities will have any enforcement right or other remedy in respect of covenant breaches (including breaches of the covenant described above under “— Mergers and Similar Transactions”) except as described below.

If an event of default (or, with respect to securities issued on or after July 1, 2020 (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes) under the 2008 GSFC indenture, a covenant breach) occurs, the trustee will have special duties. In that situation, the trustee will be obligated to use those of its rights and powers under the relevant debt indenture, and to use the same degree of care and skill in doing so, that a prudent person would use in that situation in conducting his or her own affairs.

Except as described in the prior paragraph, the trustee is not required to take any action under the relevant debt indenture at the request of any holders unless the holders offer the trustee reasonable protection from expenses and liability. This is called an indemnity. If the trustee is provided with an indemnity reasonably satisfactory to it, the holders of a majority in principal amount of all debt securities of the relevant series may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee with respect to that series. These majority holders may also direct the trustee in performing any other action under the applicable debt indenture with respect to the debt securities of that series.

Before you bypass the trustee and bring your own lawsuit or other formal legal action or take other steps to enforce your rights or protect your interests relating to any debt security, all of the following must occur:

- The holder of your debt security must give the trustee written notice that an event of default (or, with respect to securities issued on or after July 1, 2020 (other than new issuances of Series E Medium-Term Notes or reopenings of previously issued Series E Medium-Term Notes) under the 2008 GSFC indenture, a covenant breach) has occurred, and the event of default (or covenant breach) must not have been cured or waived;
- The holders of not less than 25% in principal amount of all debt securities of your series must make a written request that the trustee take action because of the default (or breach), and they or other holders must offer to the trustee indemnity reasonably satisfactory to the trustee against the cost and other liabilities of taking that action;
- The trustee must not have taken action for 60 days after the above steps have been taken; and
- During those 60 days, the holders of a majority in principal amount of the debt securities of your series must not have given the trustee directions that are inconsistent with the written request of the holders of not less than 25% in principal amount of the debt securities of your series.

You are entitled at any time, however, to bring a lawsuit for the payment of money due on your debt security on or after its stated maturity (or, if your debt security is redeemable, on or after its redemption date).

Waiver of Default

The holders of not less than a majority in principal amount of the debt securities of any series (or of any tranche, in the case of senior debt securities issued under the 2007 GSFC indenture) may waive a default for all debt securities of that series (or of that tranche, in the case of senior debt securities issued under the 2007 GSFC indenture). If this happens, the default will be treated as if it has not occurred. No one can waive a payment default on your debt security, however, without the approval of the particular holder of that debt security. For the purpose of this paragraph, the term “default” means any event which is, or after notice or lapse of time or both would become, an event of default or covenant breach in respect of the relevant securities.

We and The Goldman Sachs Group, Inc. Will Give the Trustee Information About Defaults Annually

We and The Goldman Sachs Group, Inc. will furnish to each trustee every year a written statement, respectively, of two of our or its officers certifying that to their knowledge we or The Goldman Sachs Group, Inc., as the case may be, is in compliance with the applicable debt indenture and the debt securities issued under it, or else specifying any default under the relevant debt indenture. For the purpose of this paragraph, the term “default” means any event which is, or after notice or lapse of time or both would become, an event of default or covenant breach in respect of the relevant securities.

Book-entry and other indirect owners should consult their banks or brokers for information on how to give notice or direction to or make a request of the trustee and how to declare or cancel an acceleration of the stated maturity. Book-entry and other indirect owners are described below under “Legal Ownership and Book-Entry Issuance”.

Modification of the Debt Indentures and Waiver of Covenants

There are four types of changes we and The Goldman Sachs Group, Inc. can make to the debt indentures and the debt securities or series of debt securities and related guarantees issued under a particular debt indenture.

Changes Requiring Each Holder’s Approval

First, there are changes that cannot be made without the approval of the holder of each debt security affected by the change under the applicable debt indenture. Here is a list of those types of changes:

- change the stated maturity for any principal or interest payment on a debt security;
- reduce the principal amount, the amount payable on acceleration of the stated maturity after a default, the interest rate or the redemption price for a debt security;
- permit redemption of a debt security if not previously permitted;
- impair any right a holder may have to require repayment of its debt security;
- change the currency of any payment on a debt security;
- change the place of payment on a debt security;
- impair a holder’s right to sue for payment of any amount due on its debt security;
- reduce the percentage in principal amount of the debt securities of any one or more affected series (or affected tranche, in the case of senior debt securities issued under the 2007 GSFC

indenture), taken separately or together, as applicable, and whether comprising the same or different series or less than all of the debt securities of a series, the approval of whose holders is needed to change the applicable debt indenture or those debt securities;

- reduce the percentage in principal amount of the debt securities of any one or more affected series (or affected tranche, in the case of senior debt securities issued under the 2007 GSFC indenture), taken separately or together, as applicable, and whether comprising the same or different series or less than all of the debt securities of a series, the consent of whose holders is needed to waive our compliance with the applicable debt indenture or to waive defaults; and
- change the provisions of the applicable debt indenture dealing with modification and waiver in any other respect, except to increase any required percentage referred to above or to add to the provisions that cannot be changed or waived without approval of the holder of each affected debt security.

Changes Not Requiring Approval

The second type of change does not require any approval by holders of the debt securities affected. These changes are limited to clarifications and changes that would not adversely affect any debt securities of any series in any material respect. Neither we nor The Goldman Sachs Group, Inc. needs any approval to make changes that affect only debt securities to be issued under the applicable indenture after the changes take effect.

We and The Goldman Sachs Group, Inc. may also make changes or obtain waivers that do not adversely affect a particular debt security, even if they affect other debt securities. In those cases, neither we nor The Goldman Sachs Group, Inc. needs to obtain the approval of the holder of the unaffected debt security; we and The Goldman Sachs Group, Inc. need only obtain any required approvals from the holders of the affected debt securities.

Modification of Subordination Provisions

The subordinated debt indenture will provide that neither we nor The Goldman Sachs Group, Inc. may amend the subordinated debt indenture to alter the subordination of any outstanding subordinated debt securities without the written consent of each holder of the then outstanding senior indebtedness of us and The Goldman Sachs Group, Inc. who would be adversely affected. In addition, the subordinated debt indenture will provide that neither we nor The Goldman Sachs Group, Inc. may modify the subordination provisions of the subordinated debt indenture in a manner that would adversely affect the subordinated debt securities of any one or more series then outstanding in any material respect, without the consent of the holders of a majority in aggregate principal amount of all affected series then outstanding, voting together as one class (and also of any affected series that by its terms is entitled to vote separately as a series, as described below).

Changes Requiring Majority Approval

Any other change to the 2007 GSFC indenture and the debt securities issued under that indenture would require the following approval:

- If the change affects only the debt securities of a particular tranche, it must be approved by the holders of a majority in principal amount of the debt securities of that tranche.
- If the change affects the debt securities of more than one tranche of debt securities, it must be approved by the holders of a majority in principal amount of all tranches affected by the change, with the debt securities of all the affected tranches voting together as one class for this purpose (and of any affected tranche that by its terms is entitled to vote separately as a tranche, as described below).

On the other hand, any other change to either the 2008 GSFC indenture or the subordinated debt indenture and the debt securities issued under either such debt indenture would require the following approval:

- If the change affects only particular debt securities within a series, it must be approved by the holders of a majority in principal amount of such particular debt securities.
- If the change affects multiple debt securities of one or more series, it must be approved by the holders of a majority in principal amount of all debt securities affected by the change, with all such affected debt securities voting together as one class for this purpose (and by the holders of a majority in principal amount of any affected debt securities that by their terms are entitled to vote separately as described below).

In each case, the required approval must be given by written consent.

This would mean that modification of terms with respect to certain debt securities of a series could be effectuated under any debt indenture without obtaining the consent of the holders of a majority in principal amount of other securities of such series that are not affected by such modification.

The same majority approval would be required for us to obtain a waiver of any of our covenants in any debt indenture. Our covenants include the promises we and The Goldman Sachs Group, Inc. make about merging and, with respect to The Goldman Sachs Group, Inc., putting liens on our interests in GS&Co., which we describe above under “— Mergers and Similar Transactions” and “— Restriction on Liens”, and which, in the latter case, are only for the benefit of the holders of The Goldman Sachs Group, Inc.’s senior debt securities. If the holders approve a waiver of a covenant, neither we nor The Goldman Sachs Group, Inc. will have to comply with it. The holders, however, cannot approve a waiver of any provision in a particular debt security, or in the applicable debt indenture as it affects that debt security, that neither we nor The Goldman Sachs Group, Inc. can change without the approval of the holder of that debt security as described above in “— Changes Requiring Each Holder’s Approval”, unless that holder approves the waiver.

Book-entry and other indirect owners should consult their banks or brokers for information on how approval may be granted or denied if we and The Goldman Sachs Group, Inc. seek to change a debt indenture or any debt securities or request a waiver.

Special Rules for Action by Holders

When holders take any action under any debt indenture, such as giving a notice of default, notice of covenant breach, declaring an acceleration, approving any change or waiver or giving the trustee an instruction, we will apply the following rules.

Only Outstanding Debt Securities Are Eligible

Only holders of outstanding debt securities or the outstanding debt securities of the applicable series, as applicable, will be eligible to participate in any action by holders of such debt securities or the debt securities of that series. Also, we will count only outstanding debt securities in determining whether the various percentage requirements for taking action have been met. For these purposes, a debt security will not be “outstanding” if:

- it has been surrendered for cancellation;
- we have deposited or set aside, in trust for its holder, money for its payment or redemption;

- we have fully defeased it as described above under “— Defeasance and Covenant Defeasance — Full Defeasance”; or
- we or one of our affiliates, such as GS&Co., is the owner.

Special Class Voting Rights

With respect to the 2007 GSFC indenture, we may issue tranches of debt securities that are entitled, by their terms, to vote separately on matters (for example, modification or waiver of provisions in the 2007 GSFC indenture) that would otherwise require a vote of all affected tranches, voting together as a single class. Any such tranche would be entitled to vote together with all other affected tranches, voting together as one class, and would also be entitled to vote separately, as one tranche only. In some cases, other parties may be entitled to exercise these special voting rights on behalf of the holders of the relevant tranche. For tranches of debt securities that have these rights, the rights will be described in the applicable prospectus supplement. For tranches that do not have these special rights, voting will occur as described in the preceding section, but subject to any separate voting rights of any other tranches having special rights. We may issue tranches having these or other special voting rights without obtaining the consent of or giving notice to holders of outstanding tranches.

With respect to the 2008 GSFC indenture and the subordinated debt indenture, we may issue particular debt securities or a particular series of debt securities, as applicable, that are entitled, by their terms, to vote separately on matters (for example, modification or waiver of provisions in the applicable indenture) that would otherwise require a vote of all affected debt securities or all affected series voting together as a single class. Any such debt securities or series of debt securities would be entitled to vote together with all other affected debt securities or affected series voting together as one class, and would also be entitled to vote separately as one class only. In some cases, other parties may be entitled to exercise these special voting rights on behalf of the holders of the relevant debt securities or the relevant series. For debt securities or series of debt securities that have these rights, the rights will be described in the applicable prospectus supplement. For debt securities or series of debt securities that do not have these special rights, voting will occur as described in the preceding section, but subject to any separate voting rights of any other debt securities or series of debt securities having special rights. We may issue series having these or other special voting rights without obtaining the consent of or giving notice to holders of outstanding debt securities or series.

Eligible Principal Amount of Some Debt Securities

In some situations, we may follow special rules in calculating the principal amount of debt securities that are to be treated as outstanding for the purposes described above. This may happen, for example, if the principal amount is payable in a non-U.S. dollar currency, increases over time or is not to be fixed until maturity.

For any debt security of the kind described below, we will decide how much principal amount to attribute to the debt security as follows:

- For an original issue discount debt security, we will use the principal amount that would be due and payable on the action date if the maturity of the debt security were accelerated to that date because of a default;
- For a debt security whose principal amount is not known, we will use any amount that we indicate in the prospectus supplement for that debt security. The principal amount of a debt security may not be known, for example, because it is based on an index that changes from time to time and the principal amount is not to be determined until a later date; or
- For debt securities with a principal amount denominated in one or more non-U.S. dollar currencies or currency units, we will use the U.S. dollar equivalent, which we will determine.

Determining Record Dates for Action by Holders

We and The Goldman Sachs Group, Inc. will generally be entitled to set any day as a record date for the purpose of determining the holders that are entitled to take action under a particular debt indenture. In certain limited circumstances, only the trustee will be entitled to set a record date for action by holders. If we, The Goldman Sachs Group, Inc. or the trustee set a record date for an approval or other action to be taken by holders, that vote or action may be taken only by persons or entities who are holders on the record date and must be taken during the period that we specify for this purpose, or that the trustee specifies if it sets the record date. We, The Goldman Sachs Group, Inc. or the trustee, as applicable, may shorten or lengthen this period from time to time.

This period, however, may not extend beyond the 180th day after the record date for the action. In addition, record dates for any global debt security may be set in accordance with procedures established by the depository from time to time. Accordingly, record dates for global debt securities may differ from those for other debt securities.

Form, Exchange and Transfer of Debt Securities

If any debt securities cease to be issued in registered global form, they will be issued:

- only in fully registered form;
- without interest coupons; and
- unless we indicate otherwise in your prospectus supplement, in denominations of \$1,000 and integral multiples of \$1,000 in excess thereof.

Holders may exchange their debt securities for debt securities of smaller denominations or combined into fewer debt securities of larger denominations, as long as the total principal amount is not changed. You may not exchange your debt securities for securities of a different series (or tranche, in the case of senior debt securities issued under the 2007 GSFC indenture) or having different terms, unless your prospectus supplement says you may.

Holders may exchange or transfer their debt securities at the office of the trustee. They may also replace lost, stolen, destroyed or mutilated debt securities at that office. We have appointed the trustee to act as our agent for registering senior debt securities in the names of holders and transferring and replacing debt securities and will do the same with respect to subordinated debt securities. We may appoint another entity to perform these functions or perform them ourselves.

Holders will not be required to pay a service charge to transfer or exchange their debt securities, but they may be required to pay for any tax or other governmental charge associated with the exchange or transfer. The transfer or exchange, and any replacement, will be made only if our transfer agent is satisfied with the holder's proof of legal ownership. The transfer agent may require an indemnity before replacing any debt securities.

If we have designated additional transfer agents for your debt security, they will be named in your prospectus supplement. We may appoint additional transfer agents or cancel the appointment of any particular transfer agent. We may also approve a change in the office through which any transfer agent acts.

If the debt securities of any series (or tranche, in the case of senior debt securities issued under the 2007 GSFC indenture) are redeemable and we redeem less than all those debt securities, we may block the transfer or exchange of those debt securities during the period beginning 15 calendar days before the day we mail the notice of redemption and ending on the day of that mailing, in order to

freeze the list of holders to prepare the mailing. We may also refuse to register transfers of or exchange any debt security selected for redemption, except that we will continue to permit transfers and exchanges of the unredeemed portion of any debt security being partially redeemed.

If a debt security is issued as a global debt security, only the depository — *e.g.*, DTC, Euroclear or Clearstream — will be entitled to transfer and exchange the debt security as described in this subsection, since the depository will be the sole holder of the debt security.

Payment of Additional Amounts

We intend to make all payments on the debt securities without deducting U.S. withholding taxes unless the law requires us to deduct withholding taxes. The remainder of this subsection does not apply unless the relevant prospectus supplement specifies that this subsection entitled “— Payment of Additional Amounts” is applicable to your debt securities.

If we are required by law to deduct U.S. withholding taxes on payments to non-U.S. investors and if so specified in your prospectus supplement, we will pay additional amounts on those payments to the extent described in this subsection.

We will pay additional amounts on a debt security only if the beneficial owner of the debt security is a United States alien. The term “United States alien” means any person who, for U.S. federal income tax purposes, is:

- a nonresident alien individual;
- a foreign corporation;
- a foreign partnership one or more of the members of which is, for U.S. federal income tax purposes, a foreign corporation, a nonresident alien individual or a nonresident alien fiduciary of a foreign estate or trust; or
- a nonresident alien fiduciary of an estate or trust that is not subject to U.S. federal income tax on a net income basis on income or gain from a debt security.

If the beneficial owner of a debt security is a United States alien, we will pay all additional amounts that may be necessary so that every net payment of interest or principal on that debt security will not be less than the amount provided for in that debt security. By net payment, we mean the amount we or our paying agent pays after deducting or withholding an amount for or on account of any present or future tax, assessment or other governmental charge imposed with respect to that payment by a U.S. taxing authority.

Our obligation to pay additional amounts is subject to several important exceptions, however. We will not pay additional amounts for or on account of any of the following:

- any tax, assessment or other governmental charge imposed solely because at any time there is or was a connection between the beneficial owner — or between a fiduciary, settlor, beneficiary, shareholder or member of the beneficial owner, if the beneficial owner is an estate, trust, partnership or corporation — and the United States (other than the mere receipt of a payment or the ownership or holding of a debt security), including because the beneficial owner — or the fiduciary, settlor, beneficiary, shareholder or member — at any time, for U.S. federal income tax purposes:
 - is or was a citizen or resident or is or was treated as a resident of the United States;
 - is or was present in the United States;

- is or was engaged in a trade or business in the United States;
- has or had a permanent establishment in the United States;
- is or was a personal holding company, a passive foreign investment company or a controlled foreign corporation;
- is or was a corporation that accumulates earnings to avoid U.S. federal income tax; or
- is or was the owner or deemed owner of ten percent or more of the total combined voting power of all classes of the stock of The Goldman Sachs Group, Inc., entitled to vote;
- any tax, assessment or other governmental charge imposed solely because of a change in applicable law or regulation, or in any official interpretation or application of applicable law or regulation, that becomes effective more than 15 days after the day on which the payment becomes due or is duly provided for, whichever occurs later;
- any estate, inheritance, gift, sales, excise, transfer, wealth or personal property tax, or any similar tax, assessment or other governmental charge;
- any tax, assessment or other governmental charge imposed solely because the beneficial holder or any other person fails to comply with any certification, identification or other reporting requirement concerning the nationality, residence, identity or connection with the United States of the holder or any beneficial owner of the debt security, if compliance is required by statute or by regulation of the U.S. Treasury department or by an applicable income tax treaty to which the United States is a party, as a precondition to exemption from such tax, assessment or other governmental charge;
- any tax, assessment or other governmental charge that can be paid other than by deduction or withholding from a payment on the debt securities;
- any tax, assessment or other governmental charge imposed solely because the payment is to be made by a particular paying agent (including The Goldman Sachs Group, Inc.) and would not be imposed if made by another paying agent;
- any tax, assessment or other governmental charge imposed solely because the holder (1) is a bank purchasing the debt security in the ordinary course of its lending business or (2) is a bank that is neither (A) buying the debt security for investment purposes only nor (B) buying the debt security for resale to a third party that either is not a bank or holding the debt security for investment purposes only; or
- any combination of the taxes, assessments or other governmental charges described above.

In addition, we will not pay additional amounts with respect to any payment of principal, or interest to any United States alien who is a fiduciary or a partnership, or who is not the sole beneficial owner of the payment, to the extent that we would not have to pay additional amounts to any beneficiary or settlor of the fiduciary or any member of the partnership, or to any beneficial owner of the payment, if that person or entity were treated as the beneficial owner of the debt security for these purposes.

In addition, any amounts to be paid on the debt securities will be paid net of any deduction or withholding imposed or required pursuant to Sections 1471 through 1474 of the U.S. Internal Revenue Code (the "Code"), any current or future regulations or official interpretations thereof, any agreement entered into pursuant to Section 1471(b) of the Code, or any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement entered into in connection with the implementation of such Sections of the Code, and no additional amounts will be required to be paid on account of any such deduction or withholding.

When we refer to a "U.S. taxing authority" in this subsection and "— Redemption and Repayment" above, we mean the United States of America or any state, other jurisdiction or taxing authority in the

United States. When we refer to the “United States”, we mean the United States of America, including the states and the District of Columbia, together with the territories, possessions and all those areas subject to the jurisdiction of the United States of America.

When we refer to any payment of interest or principal on a debt security in this subsection, this includes any additional amount that may be payable as described above in respect of that payment.

Payment Mechanics for Debt Securities

Who Receives Payment?

If interest is due on a debt security on an interest payment date, we or The Goldman Sachs Group, Inc. will pay the interest to the person in whose name the debt security is registered at the close of business on the regular record date relating to the interest payment date as described below under “— Payment and Record Dates for Interest”. If interest is due at maturity but on a day that is not an interest payment date, we or The Goldman Sachs Group, Inc. will pay the interest to the person entitled to receive the principal of the debt security. If principal or another amount besides interest is due on a debt security at maturity, we or The Goldman Sachs Group, Inc. will pay the amount to the holder of the debt security against surrender of the debt security at a proper place of payment or, in the case of a global debt security, in accordance with the applicable policies of the depository, DTC, Euroclear or Clearstream, as applicable.

Payment and Record Dates for Interest

Unless we specify otherwise in the applicable prospectus supplement, interest on any fixed rate debt security will be payable semiannually each May 15 and November 15 and at maturity, and the regular record date relating to an interest payment date for any fixed rate debt security will be the May 1 or November 1 preceding that interest payment date. Unless we specify otherwise in the applicable prospectus supplement, the regular record date relating to an interest payment date for any floating rate debt security will be the 15th calendar day before that interest payment date. These record dates will apply regardless of whether a particular record date is a “business day”, as defined below. For the purpose of determining the holder at the close of business on a regular record date when business is not being conducted, the close of business will mean 5:00 P.M., New York City time, on that day.

Notwithstanding the foregoing, and unless specified otherwise in your prospectus supplement, the regular record date relating to an interest payment date for any debt security in book-entry or global form will be the day immediately prior to the day on which the interest payment is to be made (as such payment day may be adjusted under the applicable business day convention). This prior day will be the record date whether or not it is a business day.

Unless we specify otherwise in this prospectus or in the applicable prospectus supplement, the term “days” refers to calendar days.

How We or The Goldman Sachs Group, Inc. Will Make Payments Due in U.S. Dollars

We or The Goldman Sachs Group, Inc. will follow the practice described in this subsection when paying amounts due in U.S. dollars. Payments of amounts due in other currencies will be made as described in the next subsection.

Payments on Global Debt Securities. We or The Goldman Sachs Group, Inc. will make payments on a global debt security in accordance with the applicable policies of the depository as in

effect from time to time. Under those policies, we or The Goldman Sachs Group, Inc. will pay directly to the depository, or its nominee, and not to any indirect owners who own beneficial interests in the global debt security. An indirect owner's right to receive those payments will be governed by the rules and practices of the depository and its participants, as described below in the section entitled "Legal Ownership and Book-Entry Issuance — What Is a Global Security?"

Payments on Non-Global Debt Securities. We or The Goldman Sachs Group, Inc. will make payments on a debt security in non-global, registered form as follows. We or The Goldman Sachs Group, Inc. will pay interest that is due on an interest payment date by check mailed on the interest payment date to the holder at his or her address shown on the trustee's records as of the close of business on the regular record date. We or The Goldman Sachs Group, Inc. will make all other payments by check or via wire transfer at the paying agent described below, against surrender of the debt security. All payments by check will be made in next-day funds — *i.e.*, funds that become available on the day after the check is cashed or wire transfer is completed.

Alternatively, if a non-global debt security has a principal amount of at least \$1,000,000 (or the equivalent in another currency) and the holder asks us to do so, we or The Goldman Sachs Group, Inc. will pay any amount that becomes due on the debt security by wire transfer of immediately available funds to an account at a bank in New York City, on the due date. To request wire payment, the holder must give the paying agent appropriate wire transfer instructions at least five business days before the requested wire payment is due. In the case of any interest payment due on an interest payment date, the instructions must be given by the person or entity who is the holder on the relevant regular record date. In the case of any other payment, payment will be made only after the debt security is surrendered to the paying agent. Any wire instructions, once properly given, will remain in effect unless and until new instructions are given in the manner described above.

Book-entry and other indirect owners should consult their banks or brokers for information on how they will receive payments on their debt securities.

How We or The Goldman Sachs Group, Inc. Will Make Payments Due in Other Currencies

We or The Goldman Sachs Group, Inc. will follow the practice described in this subsection when paying amounts that are due in a specified currency other than U.S. dollars.

Payments on Global Debt Securities. We or The Goldman Sachs Group, Inc. will make payments on a global debt security in the applicable specified currency in accordance with the applicable policies as in effect from time to time of the depository, which will be DTC, Euroclear or Clearstream. Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depository for all debt securities in global form.

Indirect owners of a global debt security denominated in a currency other than U.S. dollars should consult their banks or brokers for information on how to request payment in the specified currency in cases where holders have a right to do so.

Payments on Non-Global Debt Securities. Except as described in the last paragraph under this heading, we or The Goldman Sachs Group, Inc. will make payments on debt securities in non-global form in the applicable specified currency. We or The Goldman Sachs Group, Inc. will make these payments by wire transfer of immediately available funds to any account that is maintained in the applicable specified currency at a bank designated by the holder and is acceptable to us or The Goldman Sachs Group, Inc. and the trustee. To designate an account for wire payment, the holder

must give the paying agent appropriate wire instructions at least five business days before the requested wire payment is due. In the case of any interest payment due on an interest payment date, the instructions must be given by the person or entity who is the holder on the regular record date. In the case of any other payment, the payment will be made only after the debt security is surrendered to the paying agent. Any instructions, once properly given, will remain in effect unless and until new instructions are properly given in the manner described above.

If a holder fails to give instructions as described above, we or The Goldman Sachs Group, Inc. will notify the holder at the address in the trustee's records and will make the payment within five business days after the holder provides appropriate instructions. Any late payment made in these circumstances will be treated under the applicable debt indenture as if made on the due date, and no interest will accrue on the late payment from the due date to the date paid.

Although a payment on a debt security in non-global form may be due in a specified currency other than U.S. dollars, we or The Goldman Sachs Group, Inc. will make the payment in U.S. dollars if your prospectus supplement specifies that holders may ask us to do so and you make such a request. To request U.S. dollar payment in these circumstances, the holder must provide appropriate written notice to the trustee at least five business days before the next due date for which payment in U.S. dollars is requested. In the case of any interest payment due on an interest payment date, the request must be made by the person or entity who is the holder on the regular record date. Any request, once properly made, will remain in effect unless and until revoked by notice properly given in the manner described above.

Book-entry and other indirect owners of a debt security with a specified currency other than U.S. dollars should contact their banks or brokers for information about how to receive payments in the specified currency or in U.S. dollars.

Conversion to U.S. Dollars. Unless otherwise indicated in your prospectus supplement, holders are not entitled to receive payments in U.S. dollars of an amount due in another currency, either on a global debt security or a non-global debt security.

If your prospectus supplement specifies that holders may request that we make payments in U.S. dollars of an amount due in another currency, the exchange rate agent described below will calculate the U.S. dollar amount the holder receives in the exchange rate agent's discretion. A holder that requests payment in U.S. dollars will bear all associated currency exchange costs, which will be deducted from the payment.

When the Specified Currency Is Not Available. If we or The Goldman Sachs Group, Inc. is obligated to make any payment in a specified currency other than U.S. dollars, and the specified currency or any successor currency is not available to us or The Goldman Sachs Group, Inc. due to circumstances beyond our or its control — such as the imposition of exchange controls or a disruption in the currency markets — we or The Goldman Sachs Group, Inc. will be entitled to satisfy our obligation to make the payment in that specified currency by making the payment in U.S. dollars, on the basis of the exchange rate determined by the exchange rate agent described below, in its discretion.

The foregoing will apply to any debt security, whether in global or non-global form, and to any payment, including a payment at maturity. Any payment made under the circumstances and in a manner described above will not result in a default under any debt security or the applicable debt indenture.

Exchange Rate Agent. If we issue a debt security in a specified currency other than U.S. dollars, we will appoint a financial institution to act as the exchange rate agent and will name the institution initially appointed when the debt security is originally issued in the applicable prospectus supplement. We may select GS&Co. or another of our affiliates to perform this role. We may change the exchange rate agent from time to time after the original issue date of the debt security without your consent and without notifying you of the change.

All determinations made by the exchange rate agent will be in its sole discretion unless we state in the applicable prospectus supplement that any determination requires our approval. In the absence of manifest error, those determinations will be conclusive for all purposes and binding on you and us, without any liability on the part of the exchange rate agent.

Payment When Offices Are Closed

Unless specified otherwise in the applicable prospectus supplement, if any payment is due on a debt security on a day that is not a business day, we or The Goldman Sachs Group, Inc. will make the payment on the next business day. Payments postponed to the next business day in this situation will be treated under the applicable debt indenture as if they were made on the original due date. Postponement of this kind will not result in a default under any debt security or the applicable debt indenture, and, unless otherwise specified on the applicable prospectus supplement, no interest will accrue on the postponed amount from the original due date to the next business day. The term business day has a special meaning, which we describe above under “— Payment and Record Dates for Interest”.

Paying Agent

We may appoint one or more financial institutions to act as our or The Goldman Sachs Group, Inc.’s paying agents, at whose designated offices debt securities in non-global entry form may be surrendered for payment at their maturity. We call each of those offices a paying agent. We may add, replace or terminate paying agents from time to time. We may also choose to act as our own paying agent. Initially, we have appointed the trustee, at its corporate trust office in New York City, as the paying agent. We must notify the trustee of changes in the paying agents.

Unclaimed Payments

Regardless of who acts as paying agent, all money paid by us to a paying agent that remains unclaimed at the end of two years after the amount is due to a holder will be repaid to us. After that two-year period, the holder may look only to us or The Goldman Sachs Group, Inc. for payment and not to the trustee, any other paying agent or anyone else.

Notices

Notices to be given to holders of a global debt security will be given only to the depositary, in accordance with its applicable policies as in effect from time to time. Notices to be given to holders of debt securities not in global form will be sent by mail to the respective addresses of the holders as they appear in the trustee’s records, and will be deemed given when mailed. Neither the failure to give any notice to a particular holder, nor any defect in a notice given to a particular holder, will affect the sufficiency of any notice given to another holder.

Book-entry and other indirect owners should consult their banks or brokers for information on how they will receive notices.

Guarantee by The Goldman Sachs Group, Inc.

The Goldman Sachs Group, Inc. will fully and unconditionally guarantee the payment of principal of, and any interest and premium on, the debt securities, when due and payable, whether at the stated maturity, by declaration of acceleration, call for redemption or otherwise, in accordance with the terms of the security, the relevant debt indenture and the applicable prospectus supplement accompanying this prospectus. The guarantee will remain in effect until the entire principal of, and interest and premium, if any, on, the debt securities has been paid in full or discharged in accordance with the provisions of the relevant indenture, or otherwise fully defeased by The Goldman Sachs Group, Inc.

Because The Goldman Sachs Group, Inc. is a holding company, its ability to perform its obligations on the guarantees of our debt securities will depend in part on its ability to participate in distributions of assets from its subsidiaries. We discuss these matters above under "Prospectus Summary — The Goldman Sachs Group, Inc. is a Holding Company".

Guarantee of Debt Securities of GS Finance Corp. Issued under the Senior Debt Indentures

The guarantee by The Goldman Sachs Group, Inc. of our debt securities issued under either of the senior debt indentures will rank equally in right of payment with all senior indebtedness of The Goldman Sachs Group, Inc.

Guarantee of Debt Securities of GS Finance Corp. to Be Issued under the Subordinated Debt Indenture

The guarantee by The Goldman Sachs Group, Inc. of our debt securities to be issued under the subordinated debt indenture will be subordinate and junior in right of payment to all senior indebtedness of The Goldman Sachs Group, Inc. No payment of the principal of, or interest or premium on, such subordinated debt securities may be made by The Goldman Sachs Group, Inc. under the terms of the subordinated guarantee provision to be included in the subordinated debt indenture until all holders of senior indebtedness of The Goldman Sachs Group, Inc. have been paid, if any of the following occurs:

- certain events of bankruptcy, insolvency or reorganization of The Goldman Sachs Group, Inc.;
- any senior indebtedness of The Goldman Sachs Group, Inc. is not paid when due (after the expiration of any applicable grace period, if any) and that default continues without cure or waiver; or
- any other default has occurred and continues without cure or waiver (after the expiration of any applicable grace period, if any) pursuant to which the holders of senior indebtedness of The Goldman Sachs Group, Inc. are permitted to accelerate the maturity of such senior indebtedness.

Upon any distribution of our or The Goldman Sachs Group, Inc.'s assets to our or its creditors in connection with any insolvency, bankruptcy or similar proceeding, all principal of, and premium, if any, and interest due or to become due on all of its senior indebtedness must be paid in full before the holders of the subordinated debt securities are entitled to receive or retain any payment from such distribution.

The subordinated debt indenture will not limit the aggregate amount of senior indebtedness that may be issued.

Pursuant to the subordination provisions to be included in the subordinated debt indenture, any payment, which would otherwise (but for the subordination provisions) be payable in respect of the

subordinated debt securities by us or The Goldman Sachs Group, Inc., will instead be paid directly to the holders of such senior indebtedness of us or The Goldman Sachs Group, Inc. (or our or its representative or trustee), as the case may be, in accordance with the priorities then existing among such holders until all such senior indebtedness has been paid in full before any payment or distribution is made to the holders of the subordinated debt securities. In the event that, notwithstanding such subordination provisions, any payment of any kind or character is made on the subordinated debt securities by us or The Goldman Sachs Group, Inc. before all such senior indebtedness is paid in full, the trustee or the holders of the subordinated debt securities receiving such payment will be required to pay over such payment or distribution to the holders of such senior indebtedness.

The subordinated debt indenture will provide that senior indebtedness will not be deemed to have been paid in full unless the holders thereof, as applicable, shall have received cash (or securities or other property satisfactory to such holders) in full payment of such senior indebtedness then outstanding. Upon the payment in full of all such senior indebtedness, the holders of the subordinated debt securities shall be subrogated to all the rights of any holders of such senior indebtedness to receive any further payments of us or The Goldman Sachs Group, Inc. applicable to such senior indebtedness until the subordinated debt securities shall have been paid in full, and such payments received by the holders of the subordinated debt securities, by reason of such subrogation, which otherwise would be paid or distributed to the holders of such senior indebtedness, shall, as between us or The Goldman Sachs Group, Inc., and its creditors other than the holders of senior indebtedness, on the one hand, and the holders of the subordinated debt securities on the other, be deemed to be a payment on account of such senior indebtedness, and not on account of the subordinated debt securities or the subordinated guarantee provision in the subordinated debt indenture.

The subordinated debt indenture will provide that no present or future holder of any senior indebtedness of us or The Goldman Sachs Group, Inc. will be prejudiced in the right to enforce subordination of the indebtedness under the subordinated debt indenture by any act or failure to act on the part of us or The Goldman Sachs Group, Inc.

Our Relationship With the Trustee

The Bank of New York Mellon has provided commercial banking and other services for The Goldman Sachs Group, Inc. and its affiliates in the past and may do so in the future. Among other things, The Bank of New York Mellon provides The Goldman Sachs Group, Inc. with a line of credit, holds debt securities issued by The Goldman Sachs Group, Inc. and serves as trustee or agent with regard to other debt obligations and warrants of The Goldman Sachs Group, Inc. or its subsidiaries.

The Bank of New York Mellon is initially serving as the trustee for the senior debt securities under the senior debt indentures. We and The Goldman Sachs Group, Inc. may also enter into supplemental indentures to the 2008 GSFC indenture with The Bank of New York Mellon, as trustee, under which our subordinated debt securities may be issued. Consequently, if The Bank of New York Mellon serves as trustee for all those securities and if an actual or potential event of default or covenant breach occurs with respect to any of these securities, the trustee may be considered to have a conflicting interest for purposes of the Trust Indenture Act of 1939. In that case, the trustee may be required to resign under one or more of the indentures, and we would be required to appoint a successor trustee. For this purpose, a "potential" event of default or covenant breach means an event that would be an event of default or covenant breach if the requirements for giving us default notice or for the default having to exist for a specific period of time were disregarded. Under the terms of the 2008 GSFC indenture, the trustee is deemed not to have a conflicting interest with respect to the 2007 GSFC indenture if an actual or potential event of default occurs with respect to senior debt securities issued under the 2008 GSFC indenture (provided that no subordinated debt securities are outstanding). Similarly, under the terms of the 2007 GSFC indenture, the trustee is deemed not to have a conflicting

interest with respect to the 2008 GSFC indenture if an actual or potential event of default occurs with respect to senior debt securities issued under the 2007 GSFC indenture (provided that no subordinated debt securities are outstanding).

In addition, affiliates of the trustee have underwritten our securities from time to time in the past and may underwrite our securities from time to time in the future. The trustee may have to resign if a default occurs with respect to the debt securities within one year after any offering of our securities underwritten by an affiliate of the trustee, such as BNY Mellon Capital Markets, LLC, since the trustee would likely be considered to have a conflicting interest for purposes of the Trust Indenture Act of 1939. In that event, except in very limited circumstances, the trustee would be required to resign as trustee under one or more of the indentures and we would be required to appoint a successor trustee, unless the default is cured or waived within 90 days. In addition, the trustee can resign for any reason with 60 days' notice, and we would be required to appoint a successor trustee. If the trustee resigns following a default or for any other reason, it may be difficult to identify and appoint a qualified successor trustee. The trustee will remain the trustee under the indenture until a successor is appointed. During the period of time until a successor is appointed, the trustee will have both (a) duties to noteholders under the indenture and (b) a conflicting interest under the indenture for purposes of the Trust Indenture Act.

Under the senior debt indentures, we are required to file with the trustee any information, documents and other reports, or summaries thereof, as may be required under the Trust Indenture Act, at the times and in the manner provided under the Trust Indenture Act. However, in case of documents filed with the SEC pursuant to Section 13 or 15(d) of the Exchange Act, any such filing with the trustee need not be made until the 15th day after such filing is actually made with the SEC.

Delivery of such reports, information and documents to the trustee is for informational purposes only and the trustee's receipt of such does not constitute actual or constructive notice or knowledge of any information contained therein or determinable from information contained therein, including our compliance with any of our covenants under the senior debt indentures (as to which the trustee is entitled to rely exclusively on officers' certificates).

DESCRIPTION OF WARRANTS WE MAY OFFER

Please note that in this section entitled “Description of Warrants We May Offer”, references to “we”, “our” and “us” refer only to GS Finance Corp. and not to The Goldman Sachs Group, Inc., and references to “The Goldman Sachs Group, Inc.” refer only to The Goldman Sachs Group, Inc. and not to its consolidated subsidiaries. Also, in this section, references to “holders” mean those who own warrants 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 warrants registered in street name or in warrants issued in book-entry form through one or more depositaries. Owners of beneficial interests in the warrants should read the section below entitled “Legal Ownership and Book-Entry Issuance”.

The Warrant Indenture

We may issue warrants under our 2008 GSFC Indenture, as supplemented by the First Supplemental Indenture, dated as of February 20, 2015, the Fourth Supplemental Indenture, dated as of August 21, 2018, the Seventh Supplemental Indenture, dated as of July 1, 2020, and the Eighth Supplemental Indenture, dated as of October 14, 2020 (which, collectively, we refer to as the “warrant indenture”). The Eighth Supplemental Indenture, dated as of October 14, 2020, expressly addresses the issuance of securities designated as warrants. Warrants of this kind will not be secured by any of our property or assets or property or assets of The Goldman Sachs Group, Inc. or its subsidiaries. Thus, by owning warrants issued under the warrant indenture, you hold our unsecured obligations.

The warrants issued under the warrant indenture will be our or The Goldman Sachs Group, Inc.’s contractual obligations and will rank equally with all of our or The Goldman Sachs Group, Inc.’s other unsecured contractual obligations and unsecured and unsubordinated debt. The indenture will not limit our ability to incur additional contractual obligations or debt.

The trustee under the warrant indenture will have two main roles:

- First, the trustee can enforce your rights against us or The Goldman Sachs Group, Inc. if we or The Goldman Sachs Group, Inc. defaults. There are some limitations on the extent to which the trustee acts on your behalf, which we describe below under “— Default, Remedies and Waiver of Default”.
- Second, the trustee performs administrative duties for us, such as sending you notices.

See “— Our Relationship With the Trustee” below for more information about the trustee.

We May Issue Many Series of Warrants

We may issue warrants that are warrants settled in cash. We may offer warrants together with our other warrants or debt securities or debt or equity securities of The Goldman Sachs Group, Inc. in the form of units, as summarized below in “Description of Units We May Offer”.

We have no restrictions on the number of warrants or number of distinct series of warrants we may issue. Unless otherwise indicated in your prospectus supplement, each series of warrants will be issued under a warrant indenture. This section summarizes terms to be included in the warrant indenture and terms of the warrants that apply generally to the warrants. We will describe the specific terms of your warrant in the applicable prospectus supplement. Those terms may vary from the terms described here.

As you read this section, please remember that the specific terms of your warrant as described in your prospectus supplement will supplement and, if applicable, may modify or replace the general terms described in this section. If there are differences between your prospectus supplement and this prospectus, your prospectus supplement will control. Thus, the statements we make in this section may not apply to your warrant.

When we refer to a series of warrants, we mean all warrants issued as part of the same series under the applicable indenture. When we refer to your prospectus supplement, we mean the prospectus supplement describing the specific terms of the warrant you purchase.

Warrants

We may issue warrants, on terms to be determined at the time of sale whose cash value is determined by reference to the performance, level or value of, one or more of the following:

- securities of one or more issuers, including our common stock or other securities described in this prospectus, the common or preferred stock or other securities of The Goldman Sachs Group, Inc. or debt or equity securities of third parties;
- one or more currencies;
- one or more commodities;
- any other financial, economic or other measure or instrument, including the occurrence or non-occurrence of any event or circumstance;
- one or more indices; and/or
- one or more baskets of the items described above.

We refer to this type of warrant as a “warrant”. We refer to each property described above as a “warrant property”.

We may satisfy our obligations, if any, and the holder of warrants may satisfy its obligations, if any, with respect to any warrants by paying the cash value of the warrants determined by reference to the performance, level or value of the warrant property.

The applicable prospectus supplement will describe the amount in cash we may pay to satisfy our obligations, if any, and the amount in cash the holder of warrants may pay to satisfy its obligations, if any, with respect to any warrants.

General Terms of Warrants

Your prospectus supplement may contain, where applicable, the following information about your warrants:

- the title and series of, the aggregate number of, and the original issue price of, the warrants;
- the currency with which the warrants may be purchased;
- the warrant indenture under which the warrants will be issued;
- the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if you may not continuously exercise the warrants throughout that period, the specific date or dates on which you may exercise the warrants;
- whether the warrants will be issued in global or non-global form or in any combination of these forms, although, in any case, the form of warrants included in a unit will correspond to the form of the unit and of any security included in that unit;

- the identities of the trustee, any depositaries and any paying, transfer, calculation or other agents for the warrants;
- any securities exchange or quotation system on which the warrants or any securities deliverable upon exercise of the warrants may be listed;
- whether the warrants are to be sold separately or with other securities, as part of units or otherwise;
- the amount in cash or the method of determining the amount in cash payable upon exercise of each warrant; and
- any other terms of the warrants.

If we issue warrants as part of a unit, the applicable prospectus supplement will specify whether the warrants will be separable from the other securities in the unit before the warrants' expiration date. Warrants issued in a unit in the United States may not be so separated before the 91st day after the unit is issued.

No holder of the warrants will have any rights of a holder of the warrant property relating to the warrants.

An investment in warrants may involve special risks, including risks associated with indexed securities and currency-related risks if the warrants or the warrant property is linked to an index or is payable in or otherwise linked to a non-U.S. dollar currency. We describe some of these risks below under "Considerations Relating to Indexed Securities" and "Considerations Relating to Securities Denominated or Payable in or Linked to a Non-U.S. Dollar Currency".

Our affiliates may resell warrants in market-making transactions after their initial issuance. We discuss these transactions above under "Description of Debt Securities We May Offer — Information in Your Prospectus Supplement — Market-Making Transactions".

We May Issue Many Series of Warrants Under the Warrant Indenture

We may issue many distinct series of warrants under the warrant indenture. This section summarizes terms of the warrants that apply generally to all series. The provisions of the warrant indenture allow us not only to issue warrants with terms different from those of warrants previously issued under the warrant indenture, but also to "reopen" a previously issued series of warrants and issue additional warrants of that series.

Amounts That We May Issue

The warrant indenture will not limit the aggregate number of warrants that we may issue or the number of series or the aggregate amount of any particular series. We may issue warrants and other securities at any time without your consent and without notifying you.

The warrant indenture and the warrants will not limit our ability to incur other contractual obligations or indebtedness or to issue other securities. Also, the terms of the warrants do not impose financial or similar restrictions on us except for The Goldman Sachs Group, Inc. as described below under "— Restriction on Liens".

Expiration Date and Payment or Settlement Date

The term "expiration date" with respect to any warrant means the date on which the right to exercise the warrant expires. The term "payment or settlement date" with respect to any warrant means the date when any amount in cash with respect to that warrant becomes payable upon exercise or redemption of that warrant in accordance with its terms.

This Section Is Only a Summary

The warrant indenture and its associated documents, including your warrant will contain the full legal text of the matters described in this section and your prospectus supplement. We have filed a copy of the warrant indenture with the SEC as an exhibit to our registration statement, of which this prospectus is a part. See “Available Information” above for information on how to obtain a copy of the warrant indenture.

This section and your prospectus supplement summarize all the material terms of the warrant indenture and your warrant. They do not, however, describe every aspect of the warrant indenture and your warrant. For example, in this section and your prospectus supplement, we use terms that will be given special meaning in the warrant indenture, but we describe the meaning for only the more important of those terms.

Governing Law

The warrants and the warrant indenture will be governed by New York law.

In the event that GSFC or The Goldman Sachs Group, Inc. becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer of the warrants, the related guarantees and the warrant indenture (together, the “relevant agreements”) and any interest and obligation in or under the relevant agreements will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if the relevant agreements, and any such interest and obligation, were governed by the laws of the United States or a state of the United States. In the event that GSFC or The Goldman Sachs Group, Inc. or any affiliate of GSFC or The Goldman Sachs Group, Inc. becomes subject to a proceeding under a U.S. Special Resolution Regime, default rights under the relevant agreements that may be exercised against GSFC or The Goldman Sachs Group, Inc. are permitted to be exercised to no greater extent than such default rights could be exercised under the U.S. Special Resolution Regime if the relevant agreements were governed by the laws of the United States or a state of the United States. The requirements of this paragraph apply notwithstanding the following paragraph.

Notwithstanding anything to the contrary in the relevant agreements, but subject to the requirements of the preceding paragraph, the parties shall not be permitted to exercise any default right against GSFC or The Goldman Sachs Group, Inc. with respect to the relevant agreements that is related, directly or indirectly, to an affiliate of GSFC or The Goldman Sachs Group, Inc. becoming subject to an insolvency proceeding, except to the extent the exercise of such default right would be permitted under the creditor protection provisions of 12 C.F.R. § 252.84, 12 C.F.R. § 47.5, or 12 C.F.R. § 382.4, as applicable. After an affiliate of GSFC or The Goldman Sachs Group, Inc. has become subject to an insolvency proceeding, if any party seeks to exercise any default right against GSFC or The Goldman Sachs Group, Inc. with respect to the relevant agreements, that party shall have the burden of proof, by clear and convincing evidence, that the exercise of such default right is permitted hereunder.

For purposes of the preceding two paragraphs:

“default right” has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1 as applicable;

“insolvency proceeding” means a receivership, insolvency, liquidation, resolution, or similar proceeding; and

“U.S. Special Resolution Regime” means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

Currency of Warrants

Amounts that become due and payable on your warrant may be payable in a currency, composite currency, basket of currencies or currency unit or units specified in your prospectus supplement. We refer to this currency, composite currency, basket of currencies or currency unit or units as a “specified currency”. The specified currency for your warrant will be U.S. dollars, unless your prospectus supplement states otherwise. You will have to pay for your warrant by delivering the requisite amount of the specified currency to GS&Co. or another firm that we name in your prospectus supplement, unless other arrangements have been made between you and us or you and that firm. We will make payments on your warrants in the specified currency, except as described below in “— Payment Mechanics for Warrants”. See “Considerations Relating to Securities Denominated or Payable in or Linked to a Non-U.S. Dollar Currency” below for more information about risks of investing in warrants of this kind.

Mergers and Similar Transactions

We are, and The Goldman Sachs Group, Inc. is, generally permitted to merge or consolidate with another corporation or other entity. We are, and The Goldman Sachs Group, Inc. is, also permitted to sell our or its assets substantially as an entirety to another corporation or other entity. With regard to any series of warrants, however, we or The Goldman Sachs Group, Inc. may not take any of these actions unless all the following conditions are met:

- If the successor entity in the transaction is not GS Finance Corp. or The Goldman Sachs Group, Inc., as the case may be, the successor entity must be organized as a corporation, partnership or trust and must expressly assume our or The Goldman Sachs Group, Inc.’s obligations under the warrants of that series and the warrant indenture. The successor entity may be organized under the laws of any jurisdiction, whether in the United States or elsewhere.
- Immediately after the transaction, no default under the warrants of that series or the related guarantees has occurred and is continuing. For this purpose, “default under the warrants of that series or the related guarantees” means an event of default or covenant breach with respect to that series if the requirements for giving us or The Goldman Sachs Group, Inc. default (or breach) notice and for our default (or breach) having to continue for a specific period of time were disregarded. We describe these matters below under “— Default, Remedies and Waiver of Default”.

If the conditions described above are satisfied with respect to the warrants of any series, neither we nor The Goldman Sachs Group, Inc. will need to obtain the approval of the holders of those warrants in order to merge or consolidate or to sell our or The Goldman Sachs Group, Inc.’s assets. Also, these conditions will apply only if we or The Goldman Sachs Group, Inc. wishes to merge or consolidate with another entity or sell our or The Goldman Sachs Group, Inc.’s assets substantially as an entirety to another entity. Neither we nor The Goldman Sachs Group, Inc. will need to satisfy these conditions if we or The Goldman Sachs Group, Inc. enters into other types of transactions, including any transaction in which we or The Goldman Sachs Group, Inc. acquire the stock or assets of another entity, any transaction that involves a change of control of us or The Goldman Sachs Group, Inc. but in which we or The Goldman Sachs Group, Inc. does not merge or consolidate and any transaction in which we or The Goldman Sachs Group, Inc. sells less than substantially all our or The Goldman Sachs Group, Inc.’s assets. While we are currently a wholly owned subsidiary of The Goldman Sachs Group, Inc., there is no requirement that we remain a subsidiary.

Also, if we or The Goldman Sachs Group, Inc. merges, consolidates or sells our or The Goldman Sachs Group, Inc.'s assets substantially as an entirety and the successor is a non-U.S. entity, neither we nor The Goldman Sachs Group, Inc. nor any successor would have any obligation to compensate you for any resulting adverse tax consequences relating to your warrants.

Notwithstanding the foregoing and for the avoidance of doubt, with regard to any warrants of any series, we may sell or transfer our assets substantially as an entirety, in one or more transactions, to one or more entities, provided that our assets and the assets of our direct or indirect subsidiaries in which we own a majority of the combined voting power, taken together, are not sold or transferred substantially as an entirety to one or more entities that are not majority-owned subsidiaries of The Goldman Sachs Group, Inc., and The Goldman Sachs Group, Inc. may sell or transfer its assets substantially as an entirety in one or more transactions, to one or more entities, provided that the assets of The Goldman Sachs Group, Inc. and its direct or indirect subsidiaries in which it owns a majority of the combined voting power, taken together, are not sold or transferred substantially as an entirety to one or more entities that are not such subsidiaries.

Restriction on Liens

In the warrant indenture, The Goldman Sachs Group, Inc. promises, with respect to each series of warrants, not to create, assume, incur or guarantee any debt for borrowed money that is secured by a lien on the voting or profit participating equity ownership interests that, The Goldman Sachs Group, Inc. or any of its subsidiaries own in GS&Co., or in any subsidiary of The Goldman Sachs Group, Inc. that beneficially owns or holds, directly or indirectly, those interests in GS&Co., unless The Goldman Sachs Group, Inc. also secures the warrants of that series on an equal or priority basis with the other secured debt. The promise of The Goldman Sachs Group, Inc., however, is subject to an important exception: it may secure debt for borrowed money with liens on those interests without securing the warrants of any series if its board of directors determines that the liens do not materially detract from or interfere with the value or control of those interests as of the date of the determination.

Except as noted above, the warrant indenture does not restrict The Goldman Sachs Group, Inc.'s ability to put liens on its interests in its subsidiaries other than GS&Co., nor does the warrant indenture restrict The Goldman Sachs Group, Inc.'s ability to sell or otherwise dispose of its interests in any of The Goldman Sachs Group, Inc.'s subsidiaries, including GS&Co. In addition, the restriction on liens in the warrant indenture applies only to liens that secure debt for borrowed money. For example, liens imposed by operation of law, such as liens to secure statutory obligations for taxes or workers' compensation benefits, or liens The Goldman Sachs Group, Inc. creates to secure obligations to pay legal judgments or surety bonds, would not be covered by this restriction.

Default, Remedies and Waiver of Default

You will have special rights if an event of default or a covenant breach with respect to your series of warrants occurs and is continuing, as described in this subsection.

For warrants issued under the warrant indenture, and solely for the purposes of this section entitled "Default, Remedies and Waiver of Default", the term "series" refers to warrants with the same CUSIP number.

Events of Default

Unless your prospectus supplement says otherwise, when we refer to an event of default with respect to the warrants of any series, we mean any of the following:

- We or The Goldman Sachs Group, Inc. does not pay the principal on any warrant of that series within 30 days after the due date;

- We file for bankruptcy or other events of bankruptcy, insolvency or reorganization relating to us occur. Those events must arise under U.S. federal or state law, unless we merge, consolidate or sell our assets as described above and the successor firm is a non-U.S. entity. If that happens, then those events must arise under U.S. federal or state law or the law of the jurisdiction in which the successor firm is legally organized; or
- If the applicable prospectus supplement states that any additional event of default applies to the series, that event of default occurs.

For warrants issued under the warrant indenture, no other defaults under or breaches of the warrant indenture or warrants will result in an event of default, whether after notice, the passage of time or otherwise. However, certain events may give rise to a covenant breach, as described below under “— Covenant Breaches”.

We may change, eliminate or add to the events of default with respect to any particular series or any particular warrant or warrants within a series, as indicated in the applicable prospectus supplement.

As described below under “Remedies If an Event of Default or Covenant Breach Occurs”, under the warrant indenture, events of default will not cause any of GSFC’s warrants issued under such indenture to be automatically accelerated. Under the warrant indenture, a breach of a covenant or warranty by The Goldman Sachs Group, Inc. (including, for example, a breach of The Goldman Sachs Group, Inc.’s covenants and warranties with respect to mergers and similar transactions or restrictions on liens, described above under “Mergers and Similar Transactions” and “Restriction on Liens”, respectively) will not have the potential to cause any of GSFC’s warrants issued under the warrant indenture to be declared due and payable immediately.

Covenant Breaches

Unless your prospectus supplement says otherwise, when we refer to a covenant breach with respect to the warrants of any series issued under the warrant indenture, we mean the following:

- We remain in breach of any covenant we make in the warrant indenture for the benefit of that series, for 60 days after we and The Goldman Sachs Group, Inc. receive a notice of covenant breach stating that we are in breach and requiring us to remedy the breach. The notice must be sent by the trustee or the holders of at least 10% in principal amount of that series of securities then outstanding; or
- Except as provided by the warrant indenture, the security of that series and the related guarantee, the guarantee ceases to be effective, or a court finds the guarantee to be unenforceable or invalid, or The Goldman Sachs Group, Inc. denies its obligations as the guarantor.

We may change the definition of covenant breach with respect to any particular series or any particular warrant or warrants within a series, as indicated in the applicable prospectus supplement. A covenant breach shall not be an event of default with respect to any security.

Remedies If an Event of Default or Covenant Breach Occurs

Acceleration of warrants will not be permitted for any reason. Neither the trustee nor any holders of such warrants will have any enforcement right or other remedy in respect of covenant breaches (including breaches of the covenant described above under “— Mergers and Similar Transactions”) except as described below.

If an event of default or covenant breach occurs, the trustee will have special duties. In that situation, the trustee will be obligated to use those of its rights and powers under the warrant indenture, and to use the same degree of care and skill in doing so, that a prudent person would use in that situation in conducting his or her own affairs.

Except as described in the prior paragraph, the trustee is not required to take any action under the warrant indenture at the request of any holders unless the holders offer the trustee reasonable protection from expenses and liability. This is called an indemnity. If the trustee is provided with an indemnity reasonably satisfactory to it, the holders of a majority in principal amount of all securities of the relevant series may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee with respect to that series. These majority holders may also direct the trustee in performing any other action under the warrant indenture with respect to the securities of that series.

Before you bypass the trustee and bring your own lawsuit or other formal legal action or take other steps to enforce your rights or protect your interests relating to any warrant, all of the following must occur:

- The holder of your warrant must give the trustee written notice that an event of default or covenant breach has occurred, and the event of default (or covenant breach) must not have been cured or waived;
- The holders of not less than 25% in principal amount of all warrants of your series must make a written request that the trustee take action because of the default (or breach), and they or other holders must offer to the trustee indemnity reasonably satisfactory to the trustee against the cost and other liabilities of taking that action;
- The trustee must not have taken action for 60 days after the above steps have been taken; and
- During those 60 days, the holders of a majority in principal amount of the warrants of your series must not have given the trustee directions that are inconsistent with the written request of the holders of not less than 25% in principal amount of the warrants of your series.

You are entitled at any time, however, to bring a lawsuit for the payment of money due on your security on or after its payment date (or, if your security is redeemable, on or after its redemption date).

Waiver of Default

The holders of not less than a majority in principal amount of the warrants of any series may waive a default for all securities of that series. If this happens, the default will be treated as if it has not occurred. No one can waive a payment default on your security, however, without the approval of the particular holder of that security. For the purpose of this paragraph, the term "default" means any event which is, or after notice or lapse of time or both would become, an event of default or covenant breach in respect of the relevant securities.

We and The Goldman Sachs Group, Inc. Will Give the Trustee Information About Defaults Annually

We and The Goldman Sachs Group, Inc. will furnish to the trustee every year a written statement, respectively, of two of our or its officers certifying that to their knowledge we or The Goldman Sachs Group, Inc., as the case may be, is in compliance with the warrant indenture and the securities issued under it, or else specifying any default under the warrant indenture. For the purpose of this paragraph, the term "default" means any event which is, or after notice or lapse of time or both would become, an event of default or covenant breach in respect of the relevant securities.

Book-entry and other indirect owners should consult their banks or brokers for information on how to give notice or direction to or make a request of the trustee. Book-entry and other indirect owners are described below under "Legal Ownership and Book-Entry Issuance".

Modification of the Warrant Indenture and Waiver of Covenants

There are three types of changes we and The Goldman Sachs Group, Inc. can make to the warrant indenture and the securities or series of securities and related guarantees issued under such indenture.

Changes Requiring Each Holder's Approval

First, there are changes that cannot be made without the approval of the holder of each security affected by the change under the warrant indenture. Here is a list of those types of changes:

- change the exercise price of the security;
- change the payment date for any principal payment of the security;
- reduce the principal amount or the redemption price for a warrant;
- permit redemption of a security if not previously permitted;
- impair any right a holder may have to require repayment of its security;
- change the currency of any payment on a security;
- change the place of payment on a security;
- impair a holder's right to sue for payment of any amount due on its security;
- reduce the percentage in principal amount of the securities of any one or more affected series, taken separately or together, as applicable, and whether comprising the same or different series or less than all of the securities of a series, the approval of whose holders is needed to change the warrant indenture or those securities;
- reduce the percentage in principal amount of the securities of any one or more affected series, taken separately or together, as applicable, and whether comprising the same or different series or less than all of the securities of a series, the consent of whose holders is needed to waive our compliance with the applicable debt indenture or to waive defaults; and
- change the provisions of the applicable debt indenture dealing with modification and waiver in any other respect, except to increase any required percentage referred to above or to add to the provisions that cannot be changed or waived without approval of the holder of each affected security.

Changes Not Requiring Approval

The second type of change does not require any approval by holders of the securities affected. These changes are limited to clarifications and changes that would not adversely affect any securities of any series in any material respect. Neither we nor The Goldman Sachs Group, Inc. needs any approval to make changes that affect only securities to be issued under the warrant indenture after the changes take effect.

We and The Goldman Sachs Group, Inc. may also make changes or obtain waivers that do not adversely affect a particular security, even if they affect other securities. In those cases, neither we nor The Goldman Sachs Group, Inc. needs to obtain the approval of the holder of the unaffected security; we and The Goldman Sachs Group, Inc. need only obtain any required approvals from the holders of the affected securities.

Changes Requiring Majority Approval

Any other change to the warrant indenture and the securities issued under such debt indenture would require the following approval:

- If the change affects only particular securities within a series, it must be approved by the holders of a majority in principal amount of such particular securities.
- If the change affects multiple securities of one or more series, it must be approved by the holders of a majority in principal amount of all securities affected by the change, with all such affected securities voting together as one class for this purpose (and by the holders of a majority in principal amount of any affected securities that by their terms are entitled to vote separately as described below).

In each case, the required approval must be given by written consent.

This would mean that modification of terms with respect to certain securities of a series could be effectuated under the warrant indenture without obtaining the consent of the holders of a majority in principal amount of other securities of such series that are not affected by such modification.

The same majority approval would be required for us to obtain a waiver of any of our covenants in the warrant indenture. Our covenants include the promises we and The Goldman Sachs Group, Inc. make about merging and, with respect to The Goldman Sachs Group, Inc., putting liens on our interests in GS&Co., which we describe above under “— Mergers and Similar Transactions” and “— Restriction on Liens”, and which, in the latter case, are only for the benefit of the holders of The Goldman Sachs Group, Inc.’s senior securities. If the holders approve a waiver of a covenant, neither we nor The Goldman Sachs Group, Inc. will have to comply with it. The holders, however, cannot approve a waiver of any provision in a particular security, or in the warrant indenture as it affects that security, that neither we nor The Goldman Sachs Group, Inc. can change without the approval of the holder of that security as described above in “— Changes Requiring Each Holder’s Approval”, unless that holder approves the waiver.

Book-entry and other indirect owners should consult their banks or brokers for information on how approval may be granted or denied if we and The Goldman Sachs Group, Inc. seek to change the warrant indenture or any warrants or request a waiver.

Special Rules for Action by Holders

When holders take any action under the warrant indenture, such as giving a notice of default, approving any change or waiver or giving the trustee an instruction, we will apply the following rules.

Only Outstanding Warrants Are Eligible

Only holders of outstanding warrants of the applicable series will be eligible to participate in any action by holders of warrants of that series. Also, we will count only outstanding warrants in determining whether the various percentage requirements for taking action have been met. For these purposes, the warrants will not be “outstanding” if:

- they have been surrendered for cancellation;
- they have been called for redemption;
- we have deposited or set aside, in trust for its holder, an amount in cash for their payment or settlement; or
- we or one of our affiliates, such as GS&Co., is the owner.

Special Class Voting Rights

With respect to the warrant indenture, we may issue particular securities or a particular series of securities, as applicable, that are entitled, by their terms, to vote separately on matters (for example, modification or waiver of provisions in the warrant indenture) that would otherwise require a vote of all affected securities or all affected series voting together as a single class. Any such securities or series of securities would be entitled to vote together with all other affected securities or affected series voting together as one class, and would also be entitled to vote separately as one class only. In some cases, other parties may be entitled to exercise these special voting rights on behalf of the holders of the relevant securities or the relevant series. For securities or series of securities that have these rights, the rights will be described in the applicable prospectus supplement. For securities or series of securities that do not have these special rights, voting will occur as described in the preceding sections, but subject to any separate voting rights of any other securities or series of securities having special rights. We may issue series having these or other special voting rights without obtaining the consent of or giving notice to holders of outstanding securities or series.

Determining Record Dates for Action by Holders

We or The Goldman Sachs Group, Inc. will generally be entitled to set any day as a record date for the purpose of determining the holders that are entitled to take action under the warrant indenture. In certain limited circumstances, only the trustee will be entitled to set a record date for action by holders. If we, The Goldman Sachs Group, Inc. or the trustee set a record date for an approval or other action to be taken by holders, that vote or action may be taken only by persons or entities who are holders on the record date and must be taken during the period that we specify for this purpose, or that the trustee specifies if it sets the record date. We, The Goldman Sachs Group, Inc. or the trustee, as applicable, may shorten or lengthen this period from time to time. This period, however, may not extend beyond the 180th day after the record date for the action. In addition, record dates for any global warrant may be set in accordance with procedures established by the depositary from time to time. Accordingly, record dates for global warrants may differ from those for other warrants.

Redemption

We will not be entitled to redeem your warrant before its expiration date unless your prospectus supplement specifies a redemption commencement date.

If your prospectus supplement specifies a redemption commencement date, it will also specify one or more redemption prices. It may also specify one or more redemption periods during which the redemption prices relating to a redemption of warrants during those periods will apply.

If your prospectus supplement specifies a redemption commencement date, your warrants will be redeemable at our option at any time on or after that date or at a specified time or times. If we redeem your warrants, we will do so at the specified redemption price. If different prices are specified for different redemption periods, the price we or The Goldman Sachs Group, Inc. pay will be the price that applies to the redemption period during which your warrant is redeemed.

If we exercise an option to redeem any warrant, we will give to the holder written notice of the redemption price of the warrant to be redeemed, not less than 30 days nor more than 60 days before the applicable redemption date or within any other period before the applicable redemption date specified in the applicable prospectus supplement. We will give the notice in the manner described below in “— Notices”.

We, The Goldman Sachs Group, Inc. or our or its affiliates may purchase warrants from investors who are willing to sell from time to time, either in the open market at prevailing prices or in private transactions at negotiated prices. Warrants that we or they purchase may, at our discretion, be held, resold or canceled.

Eligible Principal Amount of Some Securities

In some situations, we may follow special rules in calculating the principal amount of warrants that are to be treated as outstanding for the purposes described above. This may happen, for example, if the principal amount is payable in a non-U.S. dollar currency, increases over time or is not to be fixed until the payment date.

For any warrant of the kind described below, we will decide how much principal amount to attribute to the warrant as follows:

- For a warrant whose principal amount is not known, we will use the premium amount for that warrant unless we indicate otherwise in the applicable prospectus supplement. The principal amount of a warrant may not be known, for example, because it is based on an index that changes from time to time and the principal amount is not to be determined until a later date; or
- For warrants with a principal amount denominated in one or more non-U.S. dollar currencies or currency units, we will use the U.S. dollar equivalent, which we will determine.

Form, Exchange and Transfer of Warrants

Each warrant will be issued in global — i.e., book-entry — form only, unless we say otherwise in the applicable prospectus supplement. Warrants in book-entry form will be represented by a global security registered in the name of a depositary, which will be the holder of all the warrants represented by the global security. Those who own beneficial interests in a global warrant will do so through participants in the depositary's clearing system, and the rights of these indirect owners will be governed solely by the applicable procedures of the depositary and its participants. We describe book-entry securities below under "Legal Ownership and Book-Entry Issuance".

If the warrants are issued as a registered global warrant, only the depositary — e.g., DTC, Euroclear and Clearstream — will be entitled to transfer and exchange the warrants as described in this subsection, since the depositary will be the sole holder of the warrant.

If any warrants cease to be issued in registered global form, they will be issued:

- only in fully registered form; and
- only in the denominations specified in your prospectus supplement.

Holders may exchange their warrants for warrants of smaller denominations or combined into fewer warrants of larger denominations, as long as the total number of warrants is not changed.

Holders may exchange or transfer their warrants at the office of the trustee. They may also replace lost, stolen, destroyed or mutilated warrants at that office. We may appoint the trustee to act as our agent for registering warrants in the names of holders and transferring and replacing warrants. We may, without your approval, appoint another entity to perform these functions or perform them ourselves.

Holders will not be required to pay a service charge to transfer or exchange their warrants, but they may be required to pay for any tax or other governmental charge associated with the transfer or exchange. The transfer or exchange, and any replacement, will be made only if our transfer agent is satisfied with the holder's proof of legal ownership. The transfer agent may require an indemnity before replacing any warrants.

If we have the right to redeem, accelerate or settle any warrants before their expiration, and we exercise our right as to less than all those warrants, we may block the transfer or exchange of those warrants during the period beginning 15 days before the day we mail the notice of exercise and ending on the day of that mailing or during any other period specified in the applicable prospectus supplement, in order to freeze the list of holders to prepare the mailing. We may also refuse to register transfers of or exchange any warrants selected for early settlement, except that we will continue to permit transfers and exchanges of the unsettled portion of any warrants being partially settled.

If we have designated additional transfer agents for your warrant, they will be named in your prospectus supplement. We may, without your approval, appoint additional transfer agents or cancel the appointment of any particular transfer agent. We may also approve a change in the office through which any transfer agent acts.

The rules for exchange described above apply to exchange of warrants for other warrants of the same series and kind.

Payment Mechanics for Warrants

Who Receives Payment?

If money is due on the warrants at their payment or settlement date, we or The Goldman Sachs Group, Inc. will pay the amount to the holder of the warrant against surrender of the warrant at a proper place of payment or, in the case of a global warrant, in accordance with the applicable policies of the depository, DTC, Euroclear or Clearstream, as applicable.

How We or The Goldman Sachs Group, Inc. Will Make Payments Due in U.S. Dollars

We or The Goldman Sachs Group, Inc. will follow the practice described in this subsection when paying amounts due in U.S. dollars. Payments of amounts due in other currencies will be made as described in the next subsection.

- ***Payments on Global Warrants.*** We or The Goldman Sachs Group, Inc. will make payments on a global warrant in accordance with the applicable policies of the depository as in effect from time to time. Under those policies, we or The Goldman Sachs Group, Inc. will pay directly to the depository, or its nominee, and not to any indirect owners who own beneficial interests in the global warrant. An indirect owner's right to receive those payments will be governed by the rules and practices of the depository and its participants, as described below in the section entitled "Legal Ownership and Book-Entry Issuance — What Is a Global Security?"
- ***Payments on Non-Global Warrants.*** We or The Goldman Sachs Group, Inc. will make payments on the warrants in non-global, registered form as follows. We or The Goldman Sachs Group, Inc. will make all payments by check at the paying agent described below, against surrender of the warrants. All payments by check will be made in next-day funds — *i.e.*, funds that become available on the day after the check is cashed.

Alternatively, if a non-global warrant has an original issue price of at least \$1,000,000 and the holder asks us to do so, we or The Goldman Sachs Group, Inc. will pay any amount that becomes due on the warrants by wire transfer of immediately available funds to an account at a bank in New York City, on the payment or settlement date. To request wire payment, the holder must give the paying agent appropriate wire transfer instructions at least five business days before the requested wire payment is due. Payment will be made only after the warrant is surrendered to the paying agent.

Book-entry and other indirect owners should consult their banks or brokers for information on how they will receive payments on their warrants.

How We or The Goldman Sachs Group, Inc. Will Make Payments Due in Other Currencies

We or The Goldman Sachs Group, Inc. will follow the practice described in this subsection when paying amounts that are due in a specified currency other than U.S. dollars.

Payments on Global Warrants. We or The Goldman Sachs Group, Inc. will make payments on a global warrant in the applicable specified currency in accordance with the applicable policies as in effect from time to time of the depository, which may be DTC, Euroclear or Clearstream. Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depository for all warrants in global form.

Indirect owners of a global warrant denominated in a currency other than U.S. dollars should consult their banks or brokers for information on how to request payment in the specified currency in cases where holders have a right to do so.

Payments on Non-Global Warrants. Except as described in the last paragraph under this heading, we or The Goldman Sachs Group, Inc. will make payments on warrants in non-global form in the applicable specified currency. We or The Goldman Sachs Group, Inc. will make these payments by wire transfer of immediately available funds to any account that is maintained in the applicable specified currency at a bank designated by the holder and acceptable to us or The Goldman Sachs Group, Inc. and the trustee. To designate an account for wire payment, the holder must give the paying agent appropriate wire instructions at least five business days before the requested wire payment is due. The payment will be made only after the warrants are surrendered to the paying agent.

If a holder fails to give instructions as described above, we or The Goldman Sachs Group, Inc. will notify the holder at the address in the trustee's records and will make the payment within five business days after the holder provides appropriate instructions. Any late payment made in these circumstances will be treated under the warrant indenture as if made on the payment or settlement date, and no interest will accrue on the late payment from the payment or settlement date to the date paid.

Although a payment on warrants in non-global form may be due in a specified currency other than U.S. dollars, we or The Goldman Sachs Group, Inc. will make the payment in U.S. dollars if your prospectus supplement specifies that holders may ask us to do so and you make such a request. To request U.S. dollar payment in these circumstances, the holder must provide appropriate written notice to the trustee at least five business days before the payment or settlement date for which payment in U.S. dollars is requested.

Book-entry and other indirect owners of a warrant with a specified currency other than U.S. dollars should contact their banks or brokers for information about how to receive payments in the specified currency or in U.S. dollars.

Conversion to U.S. Dollars. Unless otherwise indicated in your prospectus supplement, holders are not entitled to receive payments in U.S. dollars of an amount due in another currency, either on a global warrant or a non-global warrant.

If your prospectus supplement specifies that holders may request that we make payments in U.S. dollars of an amount due in another currency, the exchange rate agent described below will calculate

the U.S. dollar amount the holder receives in the exchange rate agent's discretion. A holder that requests payment in U.S. dollars will bear all associated currency exchange costs, which will be deducted from the payment.

When the Specified Currency Is Not Available. If we or The Goldman Sachs Group, Inc. is obligated to make any payment in a specified currency other than U.S. dollars, and the specified currency or any successor currency is not available to us or The Goldman Sachs Group, Inc. due to circumstances beyond our or its control — such as the imposition of exchange controls or a disruption in the currency markets — we or The Goldman Sachs Group, Inc. will be entitled to satisfy our obligation to make the payment in that specified currency by making the payment in U.S. dollars, on the basis of the exchange rate determined by the exchange rate agent described below, in its discretion.

The foregoing will apply to any warrant, whether in global or non-global form, and to any payment, including a payment at the payment or settlement date. Any payment made under the circumstances and in a manner described above will not result in a default under any warrant or the warrant indenture.

Exchange Rate Agent. If we issue a warrant in a specified currency other than U.S. dollars, we will appoint a financial institution to act as the exchange rate agent and will name the institution initially appointed when the warrant is originally issued in the applicable prospectus supplement. We may select GS&Co. or another of our affiliates to perform this role. We may change the exchange rate agent from time to time after the original issue date of the warrant without your consent and without notifying you of the change.

All determinations made by the exchange rate agent will be in its sole discretion unless we state in the applicable prospectus supplement that any determination requires our approval. In the absence of manifest error, those determinations will be conclusive for all purposes and binding on you and us, without any liability on the part of the exchange rate agent.

Payment When Offices Are Closed

Unless otherwise specified in the applicable prospectus supplement, if any payment is due on a warrant on a day that is not a business day, we or The Goldman Sachs Group, Inc. will make the payment on the next day that is a business day. Payments postponed to the next business day in this situation will be treated under the warrant indenture as if they were made on the original payment or settlement date. Postponement of this kind will not result in a default under any warrant or the warrant indenture, and, unless otherwise specified in the applicable prospectus supplement, no interest will accrue on the postponed amount from the original payment or settlement date to the next day that is a business day.

The term “business day” means, for any warrant, a day that meets all the following applicable requirements:

- for all warrants, is a Monday, Tuesday, Wednesday, Thursday or Friday that is not a day on which banking institutions in New York City are authorized or obligated by law or executive order to close and that satisfies any other criteria specified in your prospectus supplement; and
- if the warrant has a specified currency other than U.S. dollars or euros, is also a day on which banking institutions are not authorized or obligated by law, regulation or executive order to close in the principal financial center of the country issuing the specified currency.

Paying Agent

We may appoint one or more financial institutions to act as our or The Goldman Sachs Group, Inc.'s paying agents, at whose designated offices warrants in non-global entry form may be surrendered for payment at their payment or settlement date. We call each of those offices a paying agent. We may add, replace or terminate paying agents from time to time. We may also choose to act as our own paying agent. We must notify the trustee of changes in the paying agents.

Unclaimed Payments

Regardless of who acts as paying agent, all amounts in cash paid by us to a paying agent that remain unclaimed at the end of two years after the amount is due to a holder will be repaid or redelivered to us or The Goldman Sachs Group, Inc. After that two-year period, the holder may look only to us or The Goldman Sachs Group, Inc. for payment of any amount in cash, and not to the trustee, any other paying agent or anyone else.

Notices

Notices to be given to holders of a global warrant will be given only to the depositary, in accordance with its applicable policies as in effect from time to time. Notices to be given to holders of warrants not in global form will be sent by mail to the respective addresses of the holders as they appear in the trustee's records, and will be deemed given when mailed. Neither the failure to give any notice to a particular holder, nor any defect in a notice given to a particular holder, will affect the sufficiency of any notice given to another holder.

Book-entry and other indirect owners should consult their banks or brokers for information on how they will receive notices.

Guarantee by The Goldman Sachs Group, Inc.

The Goldman Sachs Group, Inc. will fully and unconditionally guarantee the payment on the warrants, when due and payable, upon the exercise of your warrants, call for redemption or otherwise, in accordance with the terms of the warrant, the warrant indenture and the applicable prospectus supplement accompanying this prospectus. The guarantee will remain in effect until the entire payment, if any, on the warrant has been paid in full or discharged in accordance with the provisions of the warrant indenture.

Because The Goldman Sachs Group, Inc. is a holding company, its ability to perform its obligations on the guarantees endorsed on the warrants will depend in part on its ability to participate in distributions of assets from its subsidiaries. We discuss these matters above under "Prospectus Summary — The Goldman Sachs Group, Inc. is a Holding Company".

Our Relationship With the Trustee

The Bank of New York Mellon has provided commercial banking and other services for The Goldman Sachs Group, Inc. and its affiliates in the past and may do so in the future. Among other things, The Bank of New York Mellon provides The Goldman Sachs Group, Inc. with a line of credit, holds debt securities issued by The Goldman Sachs Group, Inc. and serves as trustee or agent with regard to other warrants and debt obligations of The Goldman Sachs Group, Inc. or its subsidiaries.

The Bank of New York Mellon is initially serving as the trustee for the senior debt securities under the senior debt indentures and the warrants under the warrant indenture. We and The Goldman Sachs

Group, Inc. may enter into supplemental indentures to the 2008 GSFC indenture with The Bank of New York Mellon, as trustee, under which our subordinated debt securities may be issued. Consequently, if The Bank of New York Mellon serves as trustee for all of those securities and if an actual or potential event of default occurs with respect to any of these securities, the trustee may be considered to have a conflicting interest for purposes of the Trust Indenture Act of 1939. In that case, the trustee may be required to resign under one or more of the indentures, including the warrant indenture, and we would be required to appoint a successor trustee. For this purpose, a “potential” event of default means an event that would be an event of default if the requirements for giving us default notice or for the default having to exist for a specific period of time were disregarded. Under the terms of the 2008 GSFC indenture, the trustee is deemed not to have a conflicting interest with respect to the 2007 GSFC indenture if an actual or potential event of default occurs with respect to the senior debt securities or warrants issued under the 2008 GSFC indenture (provided that no subordinated debt securities are outstanding). Similarly, under the terms of the 2007 GSFC indenture, the trustee is deemed not to have a conflicting interest with respect to the 2008 GSFC indenture if an actual or potential event of default occurs with respect to senior debt securities issued under the 2007 GSFC indenture (provided that no subordinated debt securities are outstanding).

In addition, affiliates of the trustee may underwrite our warrants from time to time in the future. The trustee may have to resign if a default occurs with respect to the warrants within one year after any offering of our warrants underwritten by an affiliate of the trustee, such as BNY Mellon Capital Markets, LLC, since the trustee would likely be considered to have a conflicting interest for purposes of the Trust Indenture Act of 1939. In that event, except in very limited circumstances, the trustee would be required to resign as trustee under one or more of the indentures and we would be required to appoint a successor trustee, unless the default is cured or waived within 90 days. In addition, the trustee can resign for any reason with 60 days’ notice, and we would be required to appoint a successor trustee. If the trustee resigns following a default or for any other reason, it may be difficult to identify and appoint a qualified successor trustee. The trustee will remain the trustee under the indenture until a successor is appointed. During the period of time until a successor is appointed, the trustee will have both (a) duties to noteholders under the indenture and (b) a conflicting interest under the indenture for purposes of the Trust Indenture Act.

Under the warrant indenture, we will be required to file with the trustee any information, documents and other reports, or summaries thereof, as may be required under the Trust Indenture Act, at the times and in the manner provided under the Trust Indenture Act. However, in case of documents filed with the SEC pursuant to Section 13 or 15(d) of the Exchange Act, any such filing with the trustee will not need to be made until the 15th day after such filing is actually made with the SEC.

Delivery of such reports, information and documents to the trustee is for informational purposes only and the trustee’s receipt of such does not constitute actual or constructive notice or knowledge of any information contained therein or determinable from information contained therein, including our compliance with any of our covenants under the warrant indenture (as to which the trustee is entitled to rely exclusively on officers’ certificates).

Calculation Agent

Calculations relating to warrants will be made by the calculation agent, an institution that we appoint as our agent for this purpose. That institution may include any affiliate of ours, such as GS&Co. The prospectus supplement for a particular warrant will name the institution that we have appointed to act as the calculation agent for that warrant as of its original issue date. We may appoint a different institution to serve as calculation agent from time to time after the original issue date of the warrant without your consent and without notifying you of the change.

The calculation agent's determination of any amount in cash payable with respect to the warrants will be final and binding in the absence of manifest error.

All percentages resulting from any calculation relating to the warrants will be rounded upward or downward, as appropriate, to the next higher or lower one hundred-thousandth of a percentage point, *e.g.*, 9.876541% (or .09876541) being rounded down to 9.87654% (or .0987654) and 9.876545% (or .09876545) being rounded up to 9.87655% (or .0987655). All amounts used in or resulting from any calculation relating to the warrants will be rounded upward or downward, as appropriate, to the nearest cent, in the case of U.S. dollars, or to the nearest corresponding hundredth of a unit, in the case of a currency other than U.S. dollars, with one-half cent or one-half of a corresponding hundredth of a unit or more being rounded upward.

DESCRIPTION OF UNITS WE MAY OFFER

Please note that in this section entitled “Description of Units We May Offer”, references to “we”, “our” and “us” refer only to GS Finance Corp. and not to The Goldman Sachs Group, Inc., and references to “The Goldman Sachs Group, Inc.” refer only to The Goldman Sachs Group, Inc. and not to its consolidated subsidiaries. Also, in this section, references to “holders” mean those who own units registered in their own names, on the books that we or our agent maintain for this purpose, and not those who own beneficial interests in units registered in street name or in units issued in book-entry form through one or more depositories. Owners of beneficial interests in the units should read the section below entitled “Legal Ownership and Book-Entry Issuance”.

We may issue units comprised of one or more debt securities or warrants described in this prospectus or of the foregoing and debt or equity securities of The Goldman Sachs Group, Inc. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

The applicable prospectus supplement may describe:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described below; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Debt Securities We May Offer” and “Description of Warrants We May Offer” will apply to the securities included in each unit, to the extent relevant. If a unit includes securities of The Goldman Sachs Group, Inc., such securities of The Goldman Sachs Group, Inc. will be described in a separate prospectus.

An investment in units may involve special risks, including risks associated with indexed securities and currency-related risks if the securities comprising the units are linked to an index or are payable in or otherwise linked to a non-U.S. dollar currency. We describe some of these risks below under “Considerations Relating to Indexed Securities” and “Considerations Relating to Securities Denominated or Payable in or Linked to a Non-U.S. Dollar Currency”.

Our affiliates may resell units after their initial issuance in market-making transactions. We discuss these transactions above under “Description of Debt Securities We May Offer — Information in Your Prospectus Supplement — Market-Making Transactions”.

We May Issue Many Series of Units

We may issue units in such amounts and in as many distinct series as we wish. We may also “reopen” a previously issued series of units and issue additional units of that series. This section summarizes terms of the units that apply generally to all series. We describe other specific terms of your series in the applicable prospectus supplement accompanying this prospectus. Those terms may vary from the terms described here.

As you read this section, please remember that the specific terms of your units as described in your prospectus supplement will supplement and, if applicable, may modify or replace the general terms described in this section. If there are differences between your prospectus supplement and this prospectus, your prospectus supplement will control. Thus, the statements we make in this section may not apply to your units.

When we refer to a series of units, we mean all units issued as part of the same series under the applicable unit agreement. We will identify the series of which your units are a part in your prospectus supplement. When we refer to your prospectus supplement, we mean the prospectus supplement describing the specific terms of the units you purchase.

Unit Agreements

The units will be issued under one or more unit agreements to be entered into among us, The Goldman Sachs Group, Inc., as guarantor, and a bank or other financial institution, as unit agent. We may add, replace or terminate unit agents from time to time. We may also choose to act as our own unit agent, and we may select GS&Co. or another of our affiliates to perform this role. We will identify the unit agreement under which your units will be issued and the unit agent under that agreement in your prospectus supplement. In some cases, we may issue units under one of our indentures. Securities included in a unit will be governed by their respective governing documents.

We will file the unit agreement, when executed, under which we issue your units with the SEC as an exhibit to an amendment to the registration statement of which this prospectus is a part. See "Available Information" above for information on how to obtain a copy of a unit agreement when it is filed.

General Provisions of a Unit Agreement

The following provisions will generally apply to all unit agreements unless otherwise stated in the applicable prospectus supplement.

Enforcement of Rights

The unit agent under a unit agreement will act solely as our agent in connection with the units issued under that agreement. The unit agent will not assume any obligation or relationship of agency or trust for or with any holders of those units or of the securities comprising those units. The unit agent will not be obligated to take any action on behalf of those holders to enforce or protect their rights under the units or the included securities.

Except as described in the next paragraph, a holder of a unit may, without the consent of the unit agent or any other holder, enforce its rights as holder under any security included in the unit, in accordance with the terms of that security and the warrant indenture or unit agreement under which that security is issued. Those terms are described elsewhere in this prospectus under the sections relating to debt securities and warrants or the prospectus relating to the relevant debt or equity securities of The Goldman Sachs Group, Inc.

Notwithstanding the foregoing, a unit agreement may limit or otherwise affect the ability of a holder of units issued under that agreement to enforce its rights, including any right to bring a legal action, with respect to those units or any securities, other than debt securities and warrants issued under the warrant indenture, that are included in those units. Limitations of this kind will be described in the applicable prospectus supplement.

Modifications Without Consent of Holders

We, The Goldman Sachs Group, Inc. and the applicable unit agent may amend any unit or unit agreement without the consent of any holder:

- to cure any ambiguity;
- to cure, correct or supplement any defective or inconsistent provision; or
- to make any other change that we believe is necessary or desirable and will not adversely affect the interests of the affected holders in any material respect.

Neither we nor The Goldman Sachs Group, Inc. needs any approval to make changes that affect only units to be issued after the changes take effect. We may also make changes that do not adversely affect a particular unit in any material respect, even if they adversely affect other units in a material respect. In those cases, neither we nor The Goldman Sachs Group, Inc. needs to obtain the approval of the holder of the unaffected unit; we and The Goldman Sachs Group, Inc. need only obtain any required approvals from the holders of the affected units.

The foregoing applies also to any security issued under a unit agreement, as the governing document.

Modifications With Consent of Holders

Neither we nor The Goldman Sachs Group, Inc. may amend any particular unit or a unit agreement with respect to any particular unit unless we and The Goldman Sachs Group, Inc. obtain the consent of the holder of that unit, if the amendment would:

- impair any right of the holder to exercise or enforce any right under a security included in the unit if the terms of that security require the consent of the holder to any changes that would impair the exercise or enforcement of that right; or
- reduce the percentage of outstanding units of any series or the consent of whose holders is required to amend that series, or the applicable unit agreement with respect to that series, as described below.

Any other change to a particular unit agreement and the units issued under that agreement would require the following approval:

- If the change affects only the units of a particular series issued under that agreement, the change must be approved by the holders of a majority of the outstanding units of that series.
- If the change affects the units of more than one series issued under that agreement, it must be approved by the holders of a majority of all outstanding units of all series affected by the change, with the units of all the affected series voting together as one class for this purpose.

These provisions regarding changes with majority approval also apply to changes affecting any securities issued under a unit agreement, as the governing document.

In each case, the required approval must be given by written consent.

Unit Agreements Will Not Be Qualified Under Trust Indenture Act

No unit agreement will be qualified as an indenture, and no unit agent will be required to qualify as a trustee, under the Trust Indenture Act. Therefore, holders of units issued under unit agreements will not have the protections of the Trust Indenture Act with respect to their units; in such a case, if any of

the component securities of the units are issued under a governing document qualified under the Trust Indenture Act, the holders will have the protections of the Trust Indenture Act with respect to such component securities as holders of such component securities.

Mergers and Similar Transactions Permitted; No Restrictive Covenants or Events of Default

The unit agreements will not restrict our ability to merge or consolidate with, or sell our or its assets to, another corporation or other entity or to engage in any other transactions. If at any time we or The Goldman Sachs Group, Inc. merges or consolidates with, or sells our or its assets substantially as an entirety to, another corporation or other entity, the successor entity will succeed to and assume our or The Goldman Sachs Group, Inc.'s obligations under the unit agreements. We or The Goldman Sachs Group, Inc. will then be relieved of any further obligation under these agreements.

The unit agreements will not include any restrictions on The Goldman Sachs Group, Inc.'s ability to put liens on its assets, including its interests in its subsidiaries other than GS&Co., nor will they restrict our or The Goldman Sachs Group, Inc.'s ability to sell our or its assets. The unit agreements also will not provide for any events of default (or covenant breaches) or remedies upon the occurrence of any events of default (or covenant breaches).

Governing Law

The unit agreements and the units will be governed by New York law.

Form, Exchange and Transfer

Each unit will be issued in global — *i.e.*, book-entry — form only. Units in book-entry form will be represented by a global security registered in the name of a depository, which will be the holder of all the units represented by the global security. Those who own beneficial interests in a unit will do so through participants in the depository's clearing system, and the rights of these indirect owners will be governed solely by the applicable procedures of the depository and its participants. We describe book-entry securities below under "Legal Ownership and Book-Entry Issuance".

In addition, each unit will be issued in registered form.

Each unit and all securities comprising the unit will be issued in the same form.

If we issue any units in registered, non-global form, the following will apply to them.

The units will be issued in the denominations stated in the applicable prospectus supplement. Holders may exchange their units for units of smaller denominations or combined into fewer units of larger denominations, as long as the total amount is not changed.

- Holders may exchange or transfer their units at the office of the unit agent. Holders may also replace lost, stolen, destroyed or mutilated units at that office. We may appoint another entity to perform these functions or perform them ourselves.
- Holders will not be required to pay a service charge to transfer or exchange their units, but they may be required to pay for any tax or other governmental charge associated with the transfer or exchange. The transfer or exchange, and any replacement, will be made only if our transfer agent is satisfied with the holder's proof of legal ownership. The transfer agent may also require an indemnity before replacing any units.
- If we have the right to redeem, accelerate or settle any units before their maturity, and we exercise our right as to less than all those units or other securities, we may block the

exchange or transfer of those units during the period beginning 15 days before the day we mail the notice of exercise and ending on the day of that mailing, in order to freeze the list of holders to prepare the mailing. We may also refuse to register transfers of or exchange any unit selected for early settlement, except that we will continue to permit transfers and exchanges of the unsettled portion of any unit being partially settled. We may also block the transfer or exchange of any unit in this manner if the unit includes securities that are or may be selected for early settlement.

Only the depositary will be entitled to transfer or exchange a unit in global form, since it will be the sole holder of the unit.

Payments and Notices

In making payments and giving notices with respect to our units, we will follow the procedures we plan to use with respect to our debt securities, where applicable. We describe those procedures above under “Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities” and “Description of Debt Securities We May Offer — Notices”.

Guarantee by The Goldman Sachs Group, Inc.

The Goldman Sachs Group, Inc. will fully and unconditionally guarantee the payment on our own securities included in the units, when due and payable, upon maturity, exercise, call for redemption or otherwise, as the case may be, in accordance with the terms of our securities included in the units, the relevant indenture and the applicable prospectus supplement accompanying this prospectus. The guarantee will remain in effect until the entire payment, if any, on our securities included in the unit has been paid in full or discharged in accordance with the provisions of the relevant indenture.

Because The Goldman Sachs Group, Inc. is a holding company, its ability to perform its obligations on the guarantees endorsed on our securities included in the units will depend in part on its ability to participate in distributions of assets from its subsidiaries. We discuss these matters above under “Prospectus Summary — The Goldman Sachs Group, Inc. is a Holding Company”.

GS FINANCE CORP.

Please note that in this section entitled "GS Finance Corp.", references to "we", "our" and "us" refer only to GS Finance Corp. and not to The Goldman Sachs Group, Inc., and references to "The Goldman Sachs Group, Inc." refer only to The Goldman Sachs Group, Inc. and not to its consolidated subsidiaries.

General

GS Finance Corp. is a corporation formed under the Delaware General Corporation Law by filing a certificate of incorporation with the Secretary of State of the State of Delaware. GS Finance Corp. is a wholly owned subsidiary of The Goldman Sachs Group, Inc.

GS Finance Corp. was formed for the exclusive purpose of:

- issuing its common stock to The Goldman Sachs Group, Inc.;
- issuing its debt securities, warrants and units to the public;
- lending the net proceeds from the offering of its securities to The Goldman Sachs Group, Inc. and/or its subsidiaries; and
- engaging in any related or incidental activities.

GS Finance Corp. is a consolidated finance subsidiary of The Goldman Sachs Group, Inc. and therefore, pursuant to Rule 3-10 of Regulation S-X under the Securities Act of 1933 (the "Securities Act") and Rule 12h-5 under the Exchange Act, no separate financial statements of GS Finance Corp. are included in this prospectus, and GS Finance Corp. does not file reports with the SEC under the Exchange Act. No other subsidiary of The Goldman Sachs Group, Inc. guarantees the securities of GS Finance Corp.

The principal executive office of GS Finance Corp. is located at 200 West Street, New York, New York 10282.

Activities of GS Finance Corp.

GS Finance Corp.'s principal business objective is (i) to issue its debt securities, warrants and units to the public and (ii) to lend the net proceeds from the offering of its securities to The Goldman Sachs Group, Inc. and/or its subsidiaries.

As described in other sections of this prospectus, GS Finance Corp. will issue its securities pursuant to the 2007 GSFC indenture, the 2008 GSFC indenture, a subordinated debt indenture, a warrant indenture or one or more unit agreements, as the case may be. GS Finance Corp.'s debt securities, warrants and units will be fully and unconditionally guaranteed by The Goldman Sachs Group, Inc.

The Goldman Sachs Group, Inc. and GS Finance Corp. have entered into an intercompany loan agreement, pursuant to which The Goldman Sachs Group, Inc. promises to borrow, and GS Finance Corp. to lend, the net proceeds from the offering of GS Finance Corp.'s securities. GS Finance Corp. will receive payment from The Goldman Sachs Group, Inc. pursuant to the terms of the intercompany loan agreement and will use the proceeds to satisfy its obligation to the holders of securities of GS Finance Corp.

Management of GS Finance Corp.

As of the date of this prospectus, the board of directors of GS Finance Corp. consists of four members, Matthew G. Bieber, Nnaemeka E. Eke, Laurence Kleinman and Adam J. Siegler. The directors will serve until their successors are duly elected and qualified. GS Finance Corp. will have at least two officers. The names and titles of the current officers of GS Finance Corp. are set forth below:

Adam J. Siegler	President
Matthew G. Bieber	Treasurer
Nnaemeka Eke	Vice President
Pankauz N. Shrestha	General Counsel
Matthew E. Tropp	Associate General Counsel and Secretary
Laurence Kleinman	Assistant Secretary
Julie A. Hausen	Assistant Secretary
Getty Chin	Assistant Treasurer
Robert Ennis	Assistant Treasurer
Kirsten A. Imhiosen	Assistant Treasurer
Terence M. Donnelly	Controller and Principal Accounting Officer

All of the officers of GS Finance Corp. are also officers or employees of The Goldman Sachs Group, Inc. or its affiliates.

Ownership of GS Finance Corp.

Out of 100 shares of authorized common stock of GS Finance Corp., one share is currently issued and outstanding. The Goldman Sachs Group, Inc. is the sole shareholder of all currently issued and outstanding stock of GS Finance Corp.

Guarantee by The Goldman Sachs Group, Inc.

The debt securities, warrants and units issued by GS Finance Corp. will be fully and unconditionally guaranteed by The Goldman Sachs Group, Inc. as described in this prospectus. We expect that the guarantee of securities of GS Finance Corp. other than subordinated debt securities will rank equally in right of payment with all senior indebtedness of The Goldman Sachs Group, Inc., whereas the guarantee of subordinated debt securities of GS Finance Corp. will be subordinate and junior in right of payment to all senior indebtedness of The Goldman Sachs Group, Inc. The terms of the guarantee may be provided in more detail in the applicable prospectus supplement.

Because The Goldman Sachs Group, Inc. is a holding company, its ability to perform its obligations on the guarantees of the debt securities, warrants or units issued by GS Finance Corp. depends in part on its ability to participate in distributions of assets from its subsidiaries. We discuss these matters above under "Prospectus Summary — The Goldman Sachs Group, Inc. is a Holding Company".

LEGAL OWNERSHIP AND BOOK-ENTRY ISSUANCE

In this section, we describe special considerations that will apply to registered securities issued in global — *i.e.*, book-entry — form. First we describe the difference between legal ownership and indirect ownership of registered securities. Then we describe special provisions that apply to global securities.

Who Is the Legal Owner of a Registered Security?

Each debt security, warrant and unit in registered form will be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of securities. We refer to those who have securities registered in their own names, on the books that we or the trustee or other agent maintain for this purpose, as the “holders” of those securities. These persons are the legal holders of the securities. We refer to those who, indirectly through others, own beneficial interests in securities that are not registered in their own names as indirect owners of those securities. As we discuss below, indirect owners are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect owners.

Book-Entry Owners

Each security will be issued in book-entry form only. This means securities will be represented by one or more global securities registered in the name of a financial institution that holds them as depositary on behalf of other financial institutions that participate in the depositary’s book- entry system. These participating institutions, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Under each indenture, only the person in whose name a security is registered is recognized as the holder of that security. Consequently, for securities issued in global form, we will recognize only the depositary as the holder of the securities and we will make all payments on the securities to the depositary. The depositary passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depositary and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depositary’s book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect owners, and not holders, of the securities.

Street Name Owners

In the future we may terminate a global security or issue securities initially in non-global form. In these cases, investors may choose to hold their securities in their own names or in street name. Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities and we will make all payments on those securities, including deliveries of any property other than cash, to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect owners, not holders, of those securities.

Legal Holders

Our obligations, the obligations of The Goldman Sachs Group, Inc., as guarantor, as well as the obligations of the trustee under any indenture and the obligations, if any, of unit agents and any other third parties employed by us, the trustee or any of those agents, run only to the holders of the securities. Neither we nor The Goldman Sachs Group, Inc. has any obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect owner of a security or has no choice because we are issuing the securities only in global form.

For example, once we or The Goldman Sachs Group, Inc. make a payment or give a notice to the holder, neither we nor The Goldman Sachs Group, Inc. has any further responsibility for that payment or notice even if that holder is required, under agreements with depositary participants or customers or by law, to pass it along to the indirect owners but does not do so. Similarly, if we or The Goldman Sachs Group, Inc. wants to obtain the approval of the holders for any purpose — *e.g.*, to amend the warrant indenture for a particular series of warrants or to relieve us of the consequences of a default or of our obligation to comply with a particular provision of an indenture — we or The Goldman Sachs Group, Inc. would seek the approval only from the holders, and not the indirect owners, of the relevant securities. Whether and how the holders contact the indirect owners is up to the holders.

When we refer to “you” in this prospectus, we mean those who invest in the securities being offered by this prospectus, whether they are the holders or only indirect owners of those securities. When we refer to “your securities” in this prospectus, we mean the securities in which you will hold a direct or indirect interest.

Special Considerations for Indirect Owners

If you hold securities through a bank, broker or other financial institution, either in book-entry form or in street name, you should check with your own institution to find out:

- how it handles securities payments and notices;
- whether it imposes fees or charges;
- whether and how you can instruct it to exercise any rights under the securities;
- how it would handle a request for the holders’ consent, if ever required;
- whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- if the securities are in book-entry form, how the depositary’s rules and procedures will affect these matters.

What Is a Global Security?

Each security will be issued in book-entry form only. Each security issued in book-entry form will be represented by a global security that we deposit with and register in the name of one or more financial institutions or clearing systems, or their nominees, which we select. A financial institution or clearing system that we select for any security for this purpose is called the “depositary” for that security. A security will usually have only one depositary but it may have more.

Each security will have one or more of the following as the depositaries:

- The Depository Trust Company, New York, New York, which is known as “DTC”;
- a financial institution holding the securities on behalf of Euroclear Bank SA/NV, which is known as “Euroclear”;
- a financial institution holding the securities on behalf of Clearstream Banking, société anonyme, which is known as “Clearstream”; and
- any other clearing system or financial institution named in the applicable prospectus supplement.

The depositaries named above may also be participants in one another’s clearing systems. Thus, for example, if DTC is the depository for a global security, investors may hold beneficial interests in that security through Euroclear or Clearstream, as DTC participants. The depository or depositaries for your securities will be named in your prospectus supplement; if none is named, the depository will be DTC.

A global security may represent one or any other number of individual securities. Generally, all securities represented by the same global security will have the same terms. We may, however, issue a global security that represents multiple securities of the same kind, such as debt securities, that have different terms and are issued at different times. We call this kind of global security a master global security. Your prospectus supplement will not indicate whether your securities are represented by a master global security.

A global security may not be transferred to or registered in the name of anyone other than the depository or its nominee, unless special termination situations arise. We describe those situations below under “— Holder’s Option to Obtain a Non-Global Security; Special Situations When a Global Security Will Be Terminated”. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

The depository, or its nominee, will be the sole registered owner and holder of all securities represented by a global security, and investors will be permitted to own only indirect interests in a global security. Indirect interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depository or with another institution that does. Thus, an investor whose security is represented by a global security will not be a holder of the security, but only an indirect owner of an interest in the global security.

Special Considerations for Global Securities

As an indirect owner, an investor’s rights relating to a global security will be governed by the account rules of the depository and those of the investor’s financial institution or other intermediary through which it holds its interest (e.g., Euroclear or Clearstream, if DTC is the depository), as well as general laws relating to securities transfers. We do not recognize this type of investor or any intermediary as a holder of securities and instead deal only with the depository that holds the global security.

If securities are issued only in the form of a global security, an investor should be aware of the following:

- An investor cannot cause the securities to be registered in his or her own name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below;

- An investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above under “— Who Is the Legal Owner of a Registered Security?”;
- An investor may not be able to sell interests in the securities to some insurance companies and other institutions that are required by law to own their securities in non-book-entry form;
- An investor may not be able to pledge his or her interest in a global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;
- The depositary’s policies will govern payments, deliveries, transfers, exchanges, notices and other matters relating to an investor’s interest in a global security, and those policies may change from time to time. We, the trustee and unit agents will have no responsibility for any aspect of the depositary’s policies, actions or records of ownership interests in a global security. We, the trustee and unit agents also do not supervise the depositary in any way;
- The depositary will require that those who purchase and sell interests in a global security within its book-entry system use immediately available funds and your broker or bank may require you to do so as well; and
- Financial institutions that participate in the depositary’s book-entry system and through which an investor holds its interest in the global securities, directly or indirectly, may also have their own policies affecting payments, deliveries, transfers, exchanges, notices and other matters relating to the securities, and those policies may change from time to time. For example, if you hold an interest in a global security through Euroclear or Clearstream, when DTC is the depositary, Euroclear or Clearstream, as applicable, will require those who purchase and sell interests in that security through them to use immediately available funds and comply with other policies and procedures, including deadlines for giving instructions as to transactions that are to be effected on a particular day. There may be more than one financial intermediary in the chain of ownership for an investor. Neither we nor The Goldman Sachs Group, Inc. monitors or is responsible for the policies or actions or records of ownership interests of any of those intermediaries.

Holder’s Option to Obtain a Non-Global Security; Special Situations When a Global Security Will Be Terminated

If we issue any particular securities or series of securities in book-entry form but we choose to give the beneficial owners of those particular securities or series of securities the right to obtain non-global securities, any beneficial owner entitled to obtain non-global securities may do so by following the applicable procedures of the depositary, any transfer agent or registrar for those securities or that series of securities and that owner’s bank, broker or other financial institution through which that owner holds its beneficial interest in the securities. For example, in the case of a global security representing debt securities, a beneficial owner will be entitled to obtain a non-global security representing its interest by making a written request to the transfer agent or other agent designated by us. If you are entitled to request a non-global certificate and wish to do so, you will need to allow sufficient lead time to enable us or our agent to prepare the requested certificate. In addition, in a few special situations described below, a global security will be terminated and interests in it will be exchanged for certificates in non-global form representing the securities it represented. After that exchange, the choice of whether to hold the securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in a global security transferred on termination to their own names, so that they will be holders. We have described the rights of holders and street name investors above under “— Who Is the Legal Owner of a Registered Security?”

The special situations for termination of a global security are as follows:

- if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint another institution to act as depositary within 60 days;
- if we notify the trustee or unit agent, as applicable, that we wish to terminate that global security; or
- in the case of a global security representing debt securities or warrants issued under an indenture, if an event of default has occurred with regard to such securities and has not been cured or waived.

DTC's current rules provide that it would notify its participants of a request by us to terminate a global security, but will only withdraw beneficial interests from the global security at the request of each DTC participant.

If a global security is terminated, only the depositary, and not we, The Goldman Sachs Group, Inc., the trustee for any debt securities or warrants or the unit agent for any units, is responsible for deciding the names of the institutions in whose names the securities represented by the global security will be registered and, therefore, who will be the holders of those securities.

Considerations Relating to Euroclear and Clearstream

Euroclear and Clearstream are securities clearing systems in Europe. Both systems clear and settle securities transactions between their participants through electronic, book-entry delivery of securities against payment.

Euroclear and Clearstream may be depositaries for a global security. In addition, if DTC is the depositary for a global security, Euroclear and Clearstream may hold interests in the global security as participants in DTC.

As long as any global security is held by Euroclear or Clearstream, as depositary, you may hold an interest in the global security only through an organization that participates, directly or indirectly, in Euroclear or Clearstream. If Euroclear or Clearstream is the depositary for a global security and there is no depositary in the United States, you will not be able to hold interests in that global security through any securities clearance system in the United States.

Payments, deliveries, transfers, exchanges, notices and other matters relating to the securities made through Euroclear or Clearstream must comply with the rules and procedures of those systems. Those clearing systems could change their rules and procedures at any time. Neither we nor The Goldman Sachs Group, Inc. has any control over those systems or their participants, and neither we nor The Goldman Sachs Group, Inc. take any responsibility for their activities. Transactions between participants in Euroclear or Clearstream, on one hand, and participants in DTC, on the other hand, when DTC is the depositary, would also be subject to DTC's rules and procedures.

Special Timing Considerations for Transactions in Euroclear and Clearstream

Investors will be able to make and receive through Euroclear and Clearstream payments, deliveries, transfers, exchanges, notices and other transactions involving any securities held through those clearing systems only on days when those systems are open for business. These clearing systems may not be open for business on days when banks, brokers and other institutions are open for business in the United States.

In addition, because of time-zone differences, U.S. investors who hold their interests in the securities through these clearing systems and wish to transfer their interests, or to receive or make a payment or delivery or exercise any other right with respect to their interests, on a particular day may find that the transaction will not be effected until the next business day in Luxembourg or Brussels, as applicable. Thus, investors who wish to exercise rights that expire on a particular day may need to act before the expiration date. In addition, investors who hold their interests through both DTC and Euroclear or Clearstream may need to make special arrangements to finance any purchases or sales of their interests between the U.S. and European clearing systems, and those transactions may settle later than would be the case for transactions within one clearing system.

CONSIDERATIONS RELATING TO FLOATING RATE SECURITIES

Certain Risks Related to SOFR

On June 22, 2017, the Alternative Reference Rates Committee (“ARRC”) convened by the Board of Governors of the Federal Reserve System and the Federal Reserve Bank of New York identified SOFR, a broad U.S. treasuries repurchase financing rate to be published by the Federal Reserve Bank of New York, as the rate that, in the consensus view of the ARRC, represented best practice for use in certain new U.S. dollar derivatives and other financial contracts. SOFR is a broad measure of the cost of borrowing cash overnight collateralized by U.S. treasury securities and has been published by the Federal Reserve Bank of New York since April 2018. The Federal Reserve Bank of New York has also published historical indicative Secured Overnight Financing Rates going back to 2014. Investors should not rely on any historical changes or trends in SOFR as an indicator of future changes in SOFR.

Because SOFR is published by the Federal Reserve Bank of New York based on data received from other sources, we have no control over its determination, calculation or publication. The Federal Reserve Bank of New York notes on its publication page for SOFR that use of SOFR is subject to important limitations and disclaimers, including that the Federal Reserve Bank of New York may alter the methods of calculation, publication schedule, rate revision practices or availability of SOFR at any time without notice. There can be no guarantee that SOFR will not be discontinued or fundamentally altered in a manner that is materially adverse to the interests of investors in SOFR-linked floating rate securities. If the manner in which SOFR is calculated is changed, that change may result in a reduction of the amount of interest payable on SOFR-linked floating rate securities and the trading prices of such securities. In addition, the Federal Reserve Bank of New York may withdraw, modify or amend published SOFR data in its sole discretion and without notice. The interest rate for any day will not be adjusted for any modifications or amendments to SOFR data that the Federal Reserve Bank of New York may publish after the interest rate for that day has been determined.

Additionally, daily changes in SOFR have, on occasion, been more volatile than daily changes in other benchmark or market rates. Although occasional, increased daily volatility in SOFR would not necessarily lead to more volatile interest payments, the return on and value of SOFR-linked floating rate securities may fluctuate more than floating rate securities that are linked to less volatile rates. In addition, the volatility of SOFR has reflected the underlying volatility of the overnight U.S. Treasury repo market. The Federal Reserve Bank of New York has at times conducted operations in the overnight U.S. Treasury repo market in order to help maintain the federal funds rate within a target range. There can be no assurance that the Federal Reserve Bank of New York will continue to conduct such operations in the future, and the duration and extent of any such operations is inherently uncertain. The effect of any such operations, or of the cessation of such operations to the extent they are commenced, is uncertain and could be materially adverse to investors in SOFR-linked floating rate securities.

In addition, the method for calculating an interest rate based upon SOFR varies in the market. Market terms for floating-rate securities linked to SOFR, such as the spread over the base rate reflected in interest rate provisions, the manner of calculating a forward-looking term rate, or the manner of compounding the base rate, may evolve over time, and trading prices of such securities may be lower than those of later-issued SOFR-linked floating rate securities as a result. Similarly, if SOFR fails to maintain market acceptance, or if the market predominantly adopts alternative methods of calculation or related conventions with respect to the determination of interest based on SOFR, the trading price of SOFR-linked floating rate securities may be lower than those of securities linked to reference rates that are more widely used. Investors in such securities may not be able to sell such securities at all or may not be able to sell such securities at prices that will provide them with a yield comparable to similar investments that have a developed secondary market, and may consequently suffer from increased pricing volatility and market risk.

The Calculation Agent Will Have the Authority to Make Determinations That Could Affect the Market Value of Your Floating Rate Securities

If GS&Co. is named as calculation agent for your floating rate securities, GS&Co. will make determinations with respect to the floating rate securities as specified herein and in your prospectus supplement and may have discretion in calculating the amounts payable in respect of the floating rate securities. If GS&Co. determines that a benchmark replacement date with respect to SOFR-linked floating rate securities has occurred, it will determine, among other things, the applicable benchmark replacement, the applicable benchmark replacement adjustment, and the applicable benchmark replacement conforming changes, and such determinations will be conclusive and binding absent manifest error. The exercise of this discretion by GS&Co. could adversely affect the value of your floating rate securities and may present GS&Co. with a conflict of interest. We may change the calculation agent at any time without notice, and the calculation agent may resign as calculation agent at any time upon 60 days' written notice to us.

CONSIDERATIONS RELATING TO INDEXED SECURITIES

We use the term “indexed securities” to mean any of the securities described in this prospectus, or any units that include securities, whose value is linked to an underlying asset or index or another property (including one or more securities or indices of securities). Indexed securities may present a high level of risk, and investors in certain indexed securities may lose their entire investment. In addition, the treatment of indexed securities for U.S. federal income tax purposes is often unclear due to the absence of any authority specifically addressing the issues presented by any particular indexed security. Thus, if you propose to invest in indexed securities, you should independently evaluate the federal income tax consequences of purchasing an indexed security that apply in your particular circumstances. You should also read “United States Taxation” below for a discussion of U.S. tax matters.

We May Engage in Hedging Activities that Could Adversely Affect an Indexed Security

In order to hedge an exposure on a particular indexed security, we may, directly or through our affiliates, enter into transactions involving the securities, commodities or currencies or other instruments or measures that underlie the index for that security, or derivative instruments, such as swaps, options or futures, on the index or any of its component items. By engaging in transactions of this kind, we could adversely affect the value of an indexed security. It is possible that we could achieve substantial returns from our hedging transactions while the value of the indexed security may decline.

We May Have Conflicts of Interest Regarding an Indexed Security

GS&Co. and our other affiliates may have conflicts of interest with respect to some indexed securities. GS&Co. and our other affiliates may engage in trading, including trading for hedging purposes, for their own accounts or for other accounts under their management, in indexed securities and in the securities, commodities or currencies or other instruments or measures on which the index is based or in other derivative instruments related to the index or its component items. These trading activities could adversely affect the value of indexed securities. We and our affiliates may also issue or underwrite securities or derivative instruments that are linked to the same index as one or more indexed securities. By introducing competing products into the marketplace in this manner, we could adversely affect the value of an indexed security.

GS&Co. or another of our affiliates may serve as calculation agent for the indexed securities and may have considerable discretion in calculating the amounts payable in respect of the securities. To the extent that GS&Co. or another of our affiliates calculates or compiles a particular index, it may also have considerable discretion in performing the calculation or compilation of the index. Exercising discretion in this manner could adversely affect the value of an indexed security based on the index or the rate of return on the security.

CONSIDERATIONS RELATING TO SECURITIES DENOMINATED OR PAYABLE IN OR LINKED TO A NON-U.S. DOLLAR CURRENCY

If you intend to invest in a non-U.S. dollar security — e.g., a security whose principal and/or interest is payable in a currency other than U.S. dollars or that may be settled by delivery of or reference to a non-U.S. dollar currency or property denominated in or otherwise linked to a non-U.S. dollar currency — you should consult your own financial and legal advisors as to the currency risks entailed by your investment. Securities of this kind may not be an appropriate investment for investors who are unsophisticated with respect to non-U.S. dollar currency transactions.

The information in this prospectus is directed primarily to investors who are U.S. residents. Investors who are not U.S. residents should consult their own financial and legal advisors about currency-related risks particular to their investment.

An Investment in a Non-U.S. Dollar Security Involves Currency-Related Risks

An investment in a non-U.S. dollar security entails significant risks that are not associated with a similar investment in a security that is payable solely in U.S. dollars and where settlement value is not otherwise based on a non-U.S. dollar currency. These risks include the possibility of significant changes in rates of exchange between the U.S. dollar and the various non-U.S. dollar currencies or composite currencies and the possibility of the imposition or modification of foreign exchange controls or other conditions by either the United States or non-U.S. governments. These risks generally depend on factors over which we have no control, such as economic and political events and the supply of and demand for the relevant currencies in the global markets.

Changes in Currency Exchange Rates Can Be Volatile and Unpredictable

Rates of exchange between the U.S. dollar and many other currencies have been highly volatile, and this volatility may continue and perhaps spread to other currencies in the future. Fluctuations in currency exchange rates could adversely affect an investment in a security denominated in, or whose value is otherwise linked to, a specified currency other than U.S. dollars. Depreciation of the specified currency against the U.S. dollar could result in a decrease in the U.S. dollar-equivalent value of payments on the security, including the principal payable at maturity or settlement value payable upon exercise. That in turn could cause the market value of the security to fall. Depreciation of the specified currency against the U.S. dollar could result in a loss to the investor on a U.S. dollar basis.

Exchange rates are the result of the supply of, and the demand for, the relevant currencies. Changes in exchange rates result over time, and may vary considerably during the life of an investment denominated in or otherwise relating to a foreign currency, from the interaction of many factors directly or indirectly affecting economic and political conditions in the country or area of the applicable currency, including economic and political developments in other countries.

Of particular importance to potential currency exchange risk are:

- existing and expected rates of inflation;
- existing and expected interest rate levels;
- the balance of payments;
- the extent of governmental surpluses or deficits in the relevant countries; and
- other financial, economic, military, public health and political factors.

All of these factors are, in turn, sensitive to the monetary, fiscal and trade policies pursued by the government of the applicable country and other countries important to international trade and finance.

Government Policy Can Adversely Affect Foreign Currency Exchange Rates and an Investment in a Non-U.S. Dollar Security

Foreign currency exchange rates can either float or be fixed by sovereign governments. From time to time, governments use a variety of techniques, such as intervention by a country's central bank or imposition of regulatory controls or taxes, to affect the exchange rate of their currencies. Governments may also issue a new currency to replace an existing currency or alter the exchange rate or exchange characteristics by devaluation or revaluation of a currency. Thus, a special risk in purchasing non-U.S. dollar securities is that their yields or payouts could be significantly and unpredictably affected by governmental actions. Even in the absence of governmental action directly affecting currency exchange rates, political or economic developments in the country issuing the specified currency for a non-U.S. dollar security or elsewhere could lead to significant and sudden changes in the exchange rate between the U.S. dollar and the specified currency. These changes could affect the value of the security as participants in the global currency markets move to buy or sell the specified currency or U.S. dollars in reaction to these developments.

Governments have imposed from time to time and may in the future impose exchange controls or other conditions, including taxes, with respect to the exchange or transfer of a specified currency that could affect exchange rates as well as the availability of a specified currency for a security at its maturity or on any other payment date. In addition, the ability of a holder to move currency freely out of the country in which payment in the currency is received or to convert the currency at a freely determined market rate could be limited by governmental actions.

Non-U.S. Dollar Securities May Permit Us to Make Payments in U.S. Dollars or Delay Payment If We Are Unable to Obtain the Specified Currency

Securities payable in a currency other than U.S. dollars may provide that, if the other currency is subject to convertibility, transferability, market disruption or other conditions affecting its availability at or about the time when a payment on the securities comes due because of circumstances beyond our control, we will be entitled to make the payment in U.S. dollars or delay making the payment. These circumstances could include the imposition of exchange controls or our inability to obtain the other currency because of a disruption in the currency markets. If we made payment in U.S. dollars, the exchange rate we would use would be determined in the manner described above under "Description of Debt Securities We May Offer — Payment Mechanics for Debt Securities — How We Will Make Payments Due in Other Currencies — When the Specified Currency Is Not Available". A determination of this kind may be based on limited information and would involve significant discretion on the part of our exchange rate agent, which may be an affiliate of ours. As a result, the value of the payment in U.S. dollars an investor would receive on the payment date may be less than the value of the payment the investor would have received in the other currency if it had been available, or may be zero. In addition, a government may impose extraordinary taxes on transfers of a currency. If that happens we will be entitled to deduct these taxes from any payment on securities payable in that currency.

We Will Not Adjust Non-U.S. Dollar Securities to Compensate for Changes in Foreign Currency Exchange Rates

Except as described above, we will not make any adjustment or change in the terms of a non-U.S. dollar security in the event of any change in foreign currency exchange rates for the relevant currency, whether in the event of any devaluation, revaluation or imposition of exchange or other regulatory controls or taxes or in the event of other developments affecting that currency, the U.S. dollar or any

other currency. Consequently, investors in non-U.S. dollar securities will bear the risk that their investment may be adversely affected by these types of events.

In a Lawsuit for Payment on a Non-U.S. Dollar Security, an Investor May Bear Foreign Currency Exchange Risk

Our debt securities, warrants and units will be governed by New York law. Under Section 27 of the New York Judiciary Law, a state court in the State of New York rendering a judgment on a security denominated in a currency other than U.S. dollars would be required to render the judgment in the specified currency; however, the judgment would be converted into U.S. dollars at the exchange rate prevailing on the date of entry of the judgment. Consequently, in a lawsuit for payment on a security denominated in a currency other than U.S. dollars, investors would bear currency exchange risk until judgment is entered, which could be a long time.

In courts outside of New York, investors may not be able to obtain judgment in a specified currency other than U.S. dollars. For example, a judgment for money in an action based on a non-U.S. dollar security in many other U.S. federal or state courts ordinarily would be enforced in the United States only in U.S. dollars. The date used to determine the rate of conversion of the currency in which any particular security is denominated into U.S. dollars will depend upon various factors, including which court renders the judgment.

Information About Foreign Currency Exchange Rates May Not Be Indicative of Future Performance

If we issue a non-U.S. dollar security, we may include in the applicable prospectus supplement a currency supplement that provides information about historical exchange rates for the relevant non-U.S. dollar currency or currencies. Any information about exchange rates that we may provide will be furnished as a matter of information only, and you should not regard the information as indicative of the range of, or trends in, fluctuations in currency exchange rates that may occur in the future. That rate will likely differ from the exchange rate used under the terms that apply to a particular security.

Determinations Made by the Exchange Rate Agent

All determinations made by the exchange rate agent will be made in its sole discretion (except to the extent expressly provided in this prospectus or in the applicable prospectus supplement that any determination is subject to approval by The Goldman Sachs Group, Inc.). In the absence of manifest error, its determinations will be conclusive for all purposes and will bind all holders and us. The exchange rate agent will not have any liability for its determinations.

UNITED STATES TAXATION

This section describes the material United States federal income tax consequences of owning certain of the debt securities and warrants we are offering. The material United States federal income tax consequences of owning the debt securities described below under “ — Taxation of Debt Securities — United States Holders — Indexed and Other Debt Securities”, of owning securities that contain any material term not described in this prospectus or of owning certain warrants and units will be described in the applicable prospectus supplement. This section is the opinion of Sidley Austin LLP and Sullivan & Cromwell LLP, United States tax counsel to GS Finance Corp. and The Goldman Sachs Group, Inc. It applies to you only if you hold your securities as capital assets for tax purposes. This section addresses only United States federal income taxation and does not discuss all of the tax consequences that may be relevant to you in light of your individual circumstances, including foreign, state or local tax consequences, and tax consequences arising under the Medicare contribution tax on net investment income or the alternative minimum tax. 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 thrift institution;
- a regulated investment company;
- an accrual method taxpayer subject to special tax accounting rules as a result of its use of financial statements;
- a tax-exempt organization;
- a person that owns offered securities that are a hedge or that are hedged against interest rate or currency risks;
- a person that purchases or sells the offered securities as part of a wash-sale for tax purposes;
- a person that owns offered securities 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.

This section is based on the U.S. Internal Revenue Code of 1986, as amended, its legislative history, existing and proposed regulations under the Code, published rulings and court decisions, all as currently in effect. These laws are subject to change, possibly on a retroactive basis.

If an entity or arrangement that is treated as a partnership for United States federal income tax purposes holds the debt securities, the United States federal income tax treatment of a partner will generally depend on the status of the partner and the tax treatment of the partnership. A partner in a partnership holding the debt securities should consult its tax advisor with regard to the United States federal income tax treatment of an investment in the debt securities.

Please consult your own tax advisor concerning the consequences of owning these securities in your particular circumstances under the Code and the laws of any other taxing jurisdiction.

Taxation of Debt Securities

This subsection describes the material United States federal income tax consequences of owning, selling and disposing of the debt securities we are offering, other than the debt securities described below under “— United States Holders — Indexed and Other Debt Securities” and other than debt securities issued as part of a unit, which will be described in the applicable prospectus supplement. It deals only with debt securities that are due to mature 30 years or less from the date on which they are issued. The United States federal income tax consequences of owning debt securities that are due to mature more than 30 years from their date of issue will be discussed in the applicable prospectus supplement.

The tax consequences of any particular debt security will depend on its terms, and any particular offering of debt securities may have features or terms that cause the United States federal income tax treatment of the debt securities to differ materially from the discussion below. An applicable prospectus supplement will discuss any material differences from the discussion below.

United States Holders

This subsection describes the tax consequences to a United States holder. You are a United States holder if you are a beneficial owner of a debt security and you are, for United States federal income tax purposes:

- a citizen or resident of the United States;
- a domestic corporation;
- an estate whose income is subject to United States 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.

If you are not a United States holder, this subsection does not apply to you and you should refer to “— Non-United States Holders” below.

Payments of Interest

General

Except as described below in the case of interest on an original issue discount debt security that is not qualified stated interest, each as defined below under “— United States Holders — Original Issue Discount — General”, you will be taxed on any interest on your debt security, whether payable in U.S. dollars or a non-U.S. dollar currency, including a composite currency or basket of currencies other than U.S. dollars, as ordinary income at the time you receive the interest or when it accrues, depending on your method of accounting for tax purposes.

Non-U.S. Dollar Currency Debt Security — Cash Basis Taxpayers

If you are a taxpayer that uses the cash receipts and disbursements method of accounting for tax purposes and you receive an interest payment that is denominated in, or determined by reference to, a non-U.S. dollar currency, you must recognize income equal to the U.S. dollar value of the interest payment, based on the exchange rate in effect on the date of receipt, regardless of whether you actually convert the payment into U.S. dollars.

Non-U.S. Dollar Currency Debt Security — Accrual Basis Taxpayers

If you are a taxpayer that uses an accrual method of accounting for tax purposes, you may determine the amount of income that you recognize with respect to an interest payment denominated in, or determined by reference to, a non-U.S. dollar currency by using one of two methods. Under the first method, you will determine the amount of income accrued based on the average exchange rate in effect during the interest accrual period or, with respect to an accrual period that spans two taxable years, that part of the period within the taxable year.

If you elect the second method, you would determine the amount of income accrued on the basis of the exchange rate in effect on the last day of the accrual period, or, in the case of an accrual period that spans two taxable years, the exchange rate in effect on the last day of the part of the period within the taxable year. Additionally, under this second method, if you receive a payment of interest within five business days of the last day of your accrual period or taxable year, you may instead translate the interest accrued into U.S. dollars at the exchange rate in effect on the day that you actually receive the interest payment. If you elect the second method, it will apply to all debt instruments that you hold at the beginning of the first taxable year to which the election applies and to all debt instruments that you subsequently acquire. You may not revoke this election without the consent of the United States Internal Revenue Service.

When you actually receive an interest payment, including a payment attributable to accrued but unpaid interest upon the sale or retirement of your debt security, denominated in, or determined by reference to, a non-U.S. dollar currency for which you accrued an amount of income, you will recognize ordinary income or loss measured by the difference, if any, between the exchange rate that you used to accrue interest income and the exchange rate in effect on the date of receipt, regardless of whether you actually convert the payment into U.S. dollars.

Original Issue Discount

General

If you own a debt security, other than a short-term debt security with a term of one year or less, it will be treated as an original issue discount debt security if the amount by which the debt security's stated redemption price at maturity exceeds its issue price is more than a de minimis amount. Generally, a debt security's issue price will be the first price at which a substantial amount of debt securities included in the issue of which the debt security is a part is sold to persons other than bond houses, brokers, or similar persons or organizations acting in the capacity of underwriters, placement agents, or wholesalers. A debt security's stated redemption price at maturity is the total of all payments provided by the debt security that are not payments of qualified stated interest. Generally, an interest payment on a debt security is qualified stated interest if it is one of a series of stated interest payments on a debt security that are unconditionally payable at least annually at a single fixed rate, with certain exceptions for lower rates paid during some periods, applied to the outstanding principal amount of the debt security. There are special rules for variable rate debt securities that are discussed below under "— Variable Rate Debt Securities".

In general, your debt security is not an original issue discount debt security if the amount by which its stated redemption price at maturity exceeds its issue price is less than the de minimis amount of 0.25 percent of its stated redemption price at maturity multiplied by the number of complete years to its maturity. Your debt security will have de minimis original issue discount if the amount of the excess is less than the de minimis amount. If your debt security has de minimis original issue discount, you must include the de minimis amount in income as stated principal payments are made on the debt security, unless you make the election described below under "— Election to Treat All Interest as Original Issue

Discount". You can determine the includible amount with respect to each such payment by multiplying the total amount of your debt security's de minimis original issue discount by a fraction equal to:

- the amount of the principal payment made
divided by:
- the stated principal amount of the debt security.

Generally, if your original issue discount debt security matures more than one year from its date of issue, you must include original issue discount in income before you receive cash attributable to that income. The amount of original issue discount that you must include in income is calculated using a constant-yield method, and generally you will include increasingly greater amounts of original issue discount in income over the life of your debt security. More specifically, you can calculate the amount of original issue discount that you must include in income by adding the daily portions of original issue discount with respect to your original issue discount debt security for each day during the taxable year or portion of the taxable year that you hold your original issue discount debt security. You can determine the daily portion by allocating to each day in any accrual period a pro rata portion of the original issue discount allocable to that accrual period. You may select an accrual period of any length with respect to your original issue discount debt security and you may vary the length of each accrual period over the term of your original issue discount debt security. However, no accrual period may be longer than one year and each scheduled payment of interest or principal on the original issue discount debt security must occur on either the first or final day of an accrual period.

You can determine the amount of original issue discount allocable to an accrual period by:

- multiplying your original issue discount debt security's adjusted issue price at the beginning of the accrual period by your debt security's yield to maturity; and then
- subtracting from this figure the sum of the payments of qualified stated interest on your debt security allocable to the accrual period.

You must determine the original issue discount debt security's yield to maturity on the basis of compounding at the close of each accrual period and adjusting for the length of each accrual period. Further, you determine your original issue discount debt security's adjusted issue price at the beginning of any accrual period by:

- adding your original issue discount debt security's issue price and any accrued original issue discount for each prior accrual period; and then
- subtracting any payments previously made on your original issue discount debt security that were not qualified stated interest payments.

If an interval between payments of qualified stated interest on your original issue discount debt security contains more than one accrual period, then, when you determine the amount of original issue discount allocable to an accrual period, you must allocate the amount of qualified stated interest payable at the end of the interval, including any qualified stated interest that is payable on the first day of the accrual period immediately following the interval, pro rata to each accrual period in the interval based on their relative lengths. In addition, you must increase the adjusted issue price at the beginning of each accrual period in the interval by the amount of any qualified stated interest that has accrued prior to the first day of the accrual period but that is not payable until the end of the interval. You may compute the amount of original issue discount allocable to an initial short accrual period by using any reasonable method if all other accrual periods, other than a final short accrual period, are of equal length.

The amount of original issue discount allocable to the final accrual period is equal to the difference between:

- the amount payable at the maturity of your debt security, other than any payment of qualified stated interest; and
- your debt security's adjusted issue price as of the beginning of the final accrual period.

Acquisition Premium

If you purchase your debt security for an amount that is less than or equal to the sum of all amounts, other than qualified stated interest, payable on your debt security after the purchase date but is greater than the amount of your debt security's adjusted issue price, as determined above under "— General", the excess is acquisition premium. If you do not make the election described below under "— Election to Treat All Interest as Original Issue Discount", then you must reduce the daily portions of original issue discount by a fraction equal to:

- the excess of your adjusted basis in the debt security immediately after purchase over the adjusted issue price of the debt security
divided by:
- the excess of the sum of all amounts payable, other than qualified stated interest, on the debt security after the purchase date over the debt security's adjusted issue price.

Pre-Issuance Accrued Interest

An election may be made to decrease the issue price of your debt security by the amount of pre-issuance accrued interest if:

- a portion of the initial purchase price of your debt security is attributable to pre-issuance accrued interest;
- the first stated interest payment on your debt security is to be made within one year of your debt security's issue date; and
- the payment will equal or exceed the amount of pre-issuance accrued interest.

If this election is made, a portion of the first stated interest payment will be treated as a return of the excluded pre-issuance accrued interest and not as an amount payable on your debt security.

Debt Securities Subject to Contingencies Including Optional Redemption

Your debt security is subject to a contingency if it provides for an alternative payment schedule or schedules applicable upon the occurrence of a contingency or contingencies, other than a remote or incidental contingency, whether such contingency relates to payments of interest or of principal. In such a case, you must determine the yield and maturity of your debt security by assuming that the payments will be made according to the payment schedule most likely to occur if:

- the timing and amounts of the payments that comprise each payment schedule are known as of the issue date; and
- one of such schedules is significantly more likely than not to occur.

If there is no single payment schedule that is significantly more likely than not to occur, other than because of a mandatory sinking fund, you must include income on your debt security in accordance with the general rules that govern contingent payment debt instruments. These rules will be discussed in the applicable prospectus supplement.

Notwithstanding the general rules for determining yield and maturity, if your debt security is subject to contingencies, and either you or we have an unconditional option or options that, if exercised, would require payments to be made on the debt security under an alternative payment schedule or schedules, then:

- in the case of an option or options that we may exercise, we will be deemed to exercise or not exercise an option or combination of options in the manner that minimizes the yield on your debt security; and
- in the case of an option or options that you may exercise, you will be deemed to exercise or not exercise an option or combination of options in the manner that maximizes the yield on your debt security.

If both you and we hold options described in the preceding sentence, those rules will apply to each option in the order in which they may be exercised. You would determine the yield on your debt security for the purposes of those calculations by using any date on which your debt security may be redeemed or repurchased as the maturity date and the amount payable on such date in accordance with the terms of your debt security as the principal amount payable at maturity.

If a contingency, including the exercise of an option, actually occurs or does not occur contrary to an assumption made according to the above rules then, except to the extent that a portion of your debt security is repaid as a result of this change in circumstances and solely to determine the amount and accrual of original issue discount, you must redetermine the yield and maturity of your debt security by treating your debt security as having been retired and reissued on the date of the change in circumstances for an amount equal to your debt security's adjusted issue price on that date.

Election to Treat All Interest as Original Issue Discount

You may elect to include in gross income all interest that accrues on your debt security using the constant-yield method described above under “— General”, with the modifications described below. For purposes of this election, interest will include stated interest, original issue discount, de minimis original issue discount, market discount, de minimis market discount and unstated interest, as adjusted by any amortizable bond premium, described below under “— Debt Securities Purchased at a Premium”, or acquisition premium.

If you make this election for your debt security, then, when you apply the constant-yield method:

- the issue price of your debt security will equal your cost;
- the issue date of your debt security will be the date you acquired it; and
- no payments on your debt security will be treated as payments of qualified stated interest.

Generally, this election will apply only to the debt security for which you make it; however, if the debt security has amortizable bond premium, you will be deemed to have made an election to apply amortizable bond premium against interest for all debt instruments with amortizable bond premium, other than debt instruments the interest on which is excludible from gross income, that you hold as of the beginning of the taxable year to which the election applies or thereafter. Additionally, if you make this election for a market discount debt security, as defined below under “— Market Discount”, you will be treated as having made the election discussed below under “— Market Discount” to include market discount in income currently over the life of all debt instruments having market discount that you acquire on or after the first day of the first taxable year to which the election applies. You may not revoke any election to apply the constant-yield method to all interest on a debt security or the deemed elections with respect to amortizable bond premium or market discount debt securities without the consent of the United States Internal Revenue Service.

Variable Rate Debt Securities

Your debt security will be a variable rate debt security if:

- your debt security's issue price does not exceed the total non-contingent principal payments by more than the lesser of:
 1. .015 multiplied by the product of the total non-contingent principal payments and the number of complete years to maturity from the issue date; or
 2. 15 percent of the total non-contingent principal payments; and
- your debt security provides for stated interest, compounded or paid at least annually, only at:
 1. one or more qualified floating rates;
 2. a single fixed rate and one or more qualified floating rates;
 3. a single objective rate; or
 4. a single fixed rate and a single objective rate that is a qualified inverse floating rate; and
- The value of any variable rate on any date during the term of your debt security is set no earlier than three months prior to the first day on which that value is in effect and no later than one year following that first day.

Your debt security will have a variable rate that is a qualified floating rate if:

- variations in the value of the rate can reasonably be expected to measure contemporaneous variations in the cost of newly borrowed funds in the currency in which your debt security is denominated; or
- the rate is equal to such a rate either:
 1. multiplied by a fixed multiple that is greater than 0.65 but not more than 1.35; or
 2. multiplied by a fixed multiple greater than 0.65 but not more than 1.35, and then increased or decreased by a fixed rate.

If your debt security provides for two or more qualified floating rates that are within 0.25 percentage points of each other on the issue date or can reasonably be expected to have approximately the same values throughout the term of the debt security, the qualified floating rates together constitute a single qualified floating rate.

Your debt security will not have a qualified floating rate, however, if the rate is subject to certain restrictions (including caps, floors, governors, or other similar restrictions) unless such restrictions are fixed throughout the term of the debt security or are not reasonably expected to significantly affect the yield on the debt security.

Your debt security will have a variable rate that is a single objective rate if:

- the rate is not a qualified floating rate; and
- the rate is determined using a single, fixed formula that is based on objective financial or economic information that is not within the control of or unique to the circumstances of the issuer or a related party.

Your debt security will not have a variable rate that is an objective rate, however, if it is reasonably expected that the average value of the rate during the first half of your debt security's term will be either significantly less than or significantly greater than the average value of the rate during the final half of your debt security's term.

An objective rate as described above is a qualified inverse floating rate if:

- the rate is equal to a fixed rate minus a qualified floating rate and
- the variations in the rate can reasonably be expected to inversely reflect contemporaneous variations in the cost of newly borrowed funds.

Your debt security will also have a single qualified floating rate or an objective rate if interest on your debt security is stated at a fixed rate for an initial period of one year or less followed by either a qualified floating rate or an objective rate for a subsequent period, and either:

- the fixed rate and the qualified floating rate or objective rate have values on the issue date of the debt security that do not differ by more than 0.25 percentage points; or
- the value of the qualified floating rate or objective rate is intended to approximate the fixed rate.

In general, if your variable rate debt security provides for stated interest at a single qualified floating rate or objective rate, or one of those rates after a single fixed rate for an initial period of one year or less meeting one of the two requirements described above, all stated interest on your debt security is qualified stated interest. In this case, the amount of original issue discount, if any, is determined by using, in the case of a qualified floating rate or qualified inverse floating rate, the value as of the issue date of the qualified floating rate or qualified inverse floating rate, or, for any other objective rate, a fixed rate that reflects the yield reasonably expected for your debt security.

If your variable rate debt security does not provide for stated interest at a single qualified floating rate or a single objective rate, and also does not provide for interest payable at a fixed rate other than a single fixed rate for an initial period of one year or less meeting one of the two requirements described above, you generally must determine the interest and original issue discount accruals on your debt security by:

- determining a fixed rate substitute for each variable rate provided under your variable rate debt security;
- constructing the equivalent fixed rate debt instrument, using the fixed rate substitute described above;
- determining the amount of qualified stated interest and original issue discount with respect to the equivalent fixed rate debt instrument; and
- adjusting for actual variable rates during the applicable accrual period.

When you determine the fixed rate substitute for each variable rate provided under the variable rate debt security, you generally will use the value of each variable rate as of the issue date or, for an objective rate that is not a qualified inverse floating rate, a rate that reflects the reasonably expected yield on your debt security.

If your variable rate debt security provides for stated interest either at one or more qualified floating rates or at a qualified inverse floating rate, and also provides for stated interest at a single fixed rate other than at a single fixed rate for an initial period of one year or less meeting one of the two requirements described above, you generally must determine interest and original issue discount accruals by using the method described in the previous paragraph. However, your variable rate debt security will be treated, for purposes of the first three steps of the determination, as if your debt security had provided for a qualified floating rate, or a qualified inverse floating rate, rather than the fixed rate. The qualified floating rate, or qualified inverse floating rate, that replaces the fixed rate must be such that the fair market value of your variable rate debt security as of the issue date approximates the fair market value of an otherwise identical debt instrument that provides for the qualified floating rate, or qualified inverse floating rate, rather than the fixed rate.

Short-Term Debt Securities

In general, if you are an individual or other cash basis United States holder of a debt security with a fixed maturity of one year or less, a short-term debt security, you are not required to accrue original issue discount, as specially defined below for the purposes of this paragraph, for United States federal income tax purposes unless you elect to do so (although it is possible that you may be required to include any stated interest in income as you receive it). If you are an accrual basis taxpayer, a taxpayer in a special class, including, but not limited to, a regulated investment company, common trust fund, or a certain type of pass-through entity, or a cash basis taxpayer who so elects, you will be required to accrue original issue discount on short-term debt securities on either a straight-line basis or under the constant-yield method, based on daily compounding. If you are not required and do not elect to include original issue discount in income currently, any gain you realize on the sale or retirement of your short-term debt security will be ordinary income to the extent of the accrued original issue discount, which will be determined on a straight-line basis unless you make an election to accrue the original issue discount under the constant-yield method, through the date of sale or retirement. However, if you are not required and do not elect to accrue original issue discount on your short-term debt securities, you will be required to defer deductions for interest on borrowings allocable to your short-term debt securities in an amount not exceeding the deferred income until the deferred income is realized.

When you determine the amount of original issue discount subject to these rules, you must include all interest payments on your short-term debt security, including stated interest, in your short-term debt security's stated redemption price at maturity.

Non-U.S. Dollar Currency Original Issue Discount Debt Securities

If your original issue discount debt security is denominated in, or determined by reference to, a non-U.S. dollar currency, you must determine original issue discount for any accrual period on your original issue discount debt security in the non-U.S. dollar currency and then translate the amount of original issue discount into U.S. dollars in the same manner as stated interest accrued by an accrual basis United States holder, as described above under "— Taxation of Debt Securities — United States Holders — Payments of Interest". You may recognize ordinary income or loss when you receive an amount attributable to original issue discount in connection with a payment of interest or the sale or retirement of your debt security.

Market Discount

You will be treated as if you purchased your debt security, other than a short-term debt security, at a market discount, and your debt security will be a market discount debt security if the difference between the debt security's stated redemption price at maturity or, in the case of an original issue discount debt security, the debt security's revised issue price, and the price you paid for your debt security is equal to or greater than 0.25 percent of your debt security's stated redemption price at maturity multiplied by the number of complete years to the debt security's maturity. To determine the revised issue price of your debt security for these purposes, you generally add any original issue discount that has accrued on your debt security to its issue price.

If your debt security's stated redemption price at maturity or, in the case of a discount debt security, its revised issue price, exceeds the price you paid for the debt security by less than 0.25 percent of the debt security's stated redemption price at maturity multiplied by the number of complete years to the debt security's maturity, the excess constitutes de minimis market discount, and the rules discussed below are not applicable to you.

You must treat any gain you recognize on the maturity or disposition of your market discount debt security as ordinary income to the extent of the accrued market discount on your debt security.

Alternatively, you may elect to include market discount in income currently over the life of your debt security. If you make this election, it will apply to all debt instruments with market discount that you acquire on or after the first day of the first taxable year to which the election applies. You may not revoke this election without the consent of the United States Internal Revenue Service. If you own a market discount debt security and do not make this election, you will generally be required to defer deductions for interest on borrowings allocable to your debt security in an amount not exceeding the accrued market discount on your debt security until the maturity or disposition of your debt security.

If you own a market discount debt security, the market discount would accrue on a straight-line basis unless an election is made to accrue market discount using a constant-yield method. If you make this election, it will apply only to the debt security with respect to which it is made and you may not revoke it. You will, however, not include accrued market discount in income unless you elect to do so as described above.

Debt Securities Purchased at a Premium

If you purchase your debt security for an amount in excess of its principal amount (or, in the case of an original issue discount debt security, in excess of the sum of all amounts payable on the debt security after the acquisition date (other than payments of qualified stated interest)), you may elect to treat the excess as amortizable bond premium. If you make this election, you will reduce the amount required to be included in your income each accrual period with respect to interest on your debt security by the amount of amortizable bond premium allocable to that accrual period, based on your debt security's yield to maturity. If the amortizable bond premium allocable to an accrual period exceeds your interest income from the debt securities for such accrual period, such excess is first allowed as a deduction to the extent of interest included in your income in respect of the debt securities in previous accrual periods and is then carried forward to your next accrual period. If the amortizable bond premium allocable and carried forward to the accrual period in which the debt securities are sold, retired or otherwise disposed of exceeds your interest income for such accrual period, you would be allowed an ordinary deduction equal to such excess. If your debt security is denominated in, or determined by reference to, a non-U.S. dollar currency, you will compute your amortizable bond premium in units of the non-U.S. dollar currency and your amortizable bond premium will reduce your interest income in units of the non-U.S. dollar currency. Gain or loss recognized that is attributable to changes in foreign currency exchange rates between the time your amortized bond premium offsets interest income and the time of the acquisition of your debt security is generally taxable as ordinary income or loss. If you make an election to amortize bond premium, it will apply to all debt instruments, other than debt instruments the interest on which is excludible from gross income, that you hold at the beginning of the first taxable year to which the election applies or that you thereafter acquire, and you may not revoke it without the consent of the United States Internal Revenue Service. See also "— Taxation of Debt Securities — United States Holders — Original Issue Discount — Election to Treat All Interest as Original Issue Discount".

Purchase, Sale and Retirement of the Debt Securities

Your tax basis in your debt security will generally be the U.S. dollar cost, as defined below, of your debt security, adjusted by:

- adding any original issue discount, market discount, de minimis original issue discount and de minimis market discount previously included in income with respect to your debt security; and then
- subtracting any payments on your debt security that are not qualified stated interest payments and any amortizable bond premium to the extent that such premium either reduced interest income on your debt security or gave rise to a deduction on your debt security.

If you purchase your debt security with non-U.S. dollar currency, the U.S. dollar cost of your debt security will generally be the U.S. dollar value of the purchase price on the date of purchase. However, if you are a cash basis taxpayer, or an accrual basis taxpayer if you so elect, and your debt security is traded on an established securities market, as defined in the applicable U.S. Treasury regulations, the U.S. dollar cost of your debt security will be the U.S. dollar value of the purchase price on the settlement date of your purchase.

You will generally recognize gain or loss on the sale or retirement of your debt security equal to the difference between the amount you realize on the sale or retirement, excluding any amounts attributable to accrued but unpaid interest (which will be treated as interest payments), and your tax basis in your debt security. If your debt security is sold or retired for an amount in non-U.S. dollar currency, the amount you realize will be the U.S. dollar value of such amount on the date the debt security is disposed of or retired, except that in the case of a debt security that is traded on an established securities market, as defined in the applicable U.S. Treasury regulations, a cash basis taxpayer, or an accrual basis taxpayer that so elects, will determine the amount realized based on the U.S. dollar value of the specified currency on the settlement date of the sale.

You will recognize capital gain or loss when you sell or retire your debt security, except to the extent:

- described above under “— Taxation of Debt Securities — United States Holders — Short-Term Debt Securities” or “— Market Discount”; or
- attributable to changes in exchange rates as described below.

Capital gain of a non-corporate United States holder is generally taxed at preferential rates where the property is held for more than one year.

You must treat any portion of the gain or loss that you recognize on the sale or retirement of a debt security as ordinary income or loss to the extent attributable to changes in exchange rates. However, you take exchange gain or loss into account only to the extent of the total gain or loss you realize on the transaction.

Exchange of Amounts in Other Than U.S. Dollars

If you receive non-U.S. dollar currency as interest on your debt security or on the sale or retirement of your debt security, your tax basis in the non-U.S. dollar currency will equal its U.S. dollar value when the interest is received or at the time of the sale or retirement. If you purchase non-U.S. dollar currency, you generally will have a tax basis equal to the U.S. dollar value of the non-U.S. dollar currency on the date of your purchase. If you sell or dispose of a non-U.S. dollar currency, including if you use it to purchase debt securities or exchange it for U.S. dollars, any gain or loss recognized generally will be ordinary income or loss.

Indexed and Other Debt Securities

The applicable prospectus supplement will discuss the material United States federal income tax rules with respect to contingent non-U.S. dollar currency debt securities, indexed debt securities (as described above under “Description of Debt Securities We May Offer — Indexed Debt Securities”), debt securities that are subject to the rules governing contingent payment debt instruments, renewable or extendible debt securities and any debt securities providing for the periodic payment of principal over the life of the debt security.

Non-United States Holders

This subsection describes the tax consequences to a non-United States holder. This subsection does not address the tax treatment of a debt security that is linked to the performance of a U.S. equity or an index or a basket that includes a U.S. equity. The applicable prospectus supplement will discuss the material United States federal income tax consequences to a non-United States holder that holds such a debt security. You are a non-United States holder if you are the beneficial owner of a debt security and are, for United States federal income tax purposes:

- a nonresident alien individual;
- a foreign corporation; or
- an estate or trust that in either case is not subject to United States federal income tax on a net income basis on income or gain from a debt security.

If you are a United States holder, this subsection does not apply to you.

Interest

This discussion assumes that the debt security is not subject to the rules of Section 871(h)(4)(A) of the Code, relating to interest payments that are determined by reference to the income, profits, changes in the value of property or other attributes of the debtor or a related party. If this assumption is incorrect with respect to a particular debt security, the applicable prospectus supplement will discuss the material United States federal income tax consequences to a non-United States holder that holds such a debt security.

Subject to the discussions of FATCA withholding and backup withholding below, interest (including original issue discount) on a debt security that is not effectively connected with your conduct of a trade or business in the United States will generally be exempt from United States federal income and withholding tax under the "portfolio interest exemption," provided that (i) you do not, actually or constructively, own stock possessing 10% or more of the total voting power of our outstanding stock, (ii) you are not a controlled foreign corporation that is related to us, actually or constructively and (iii) either (a) you provide to the applicable withholding agent an IRS Form W-8BEN or W-8BEN-E (or other applicable form), signed under penalties of perjury, that includes your name and address and that certifies your non-United States status in compliance with applicable law and regulations, or (b) a securities clearing organization, bank or other financial institution that holds customers' securities in the ordinary course of its trade or business provides a statement to the applicable withholding agent under penalties of perjury on which it certifies that an applicable IRS Form W-8BEN or W-8BEN-E (or other applicable form) has been received by it from you or a qualifying intermediary and furnishes a copy to the applicable withholding agent. This certification requirement may be satisfied with other documentary evidence in the case of a debt security held in an offshore account or through certain foreign intermediaries. The applicable withholding agent for purposes of the certification requirement described above is generally the last U.S. payor (or a non-U.S. payor that is a qualified intermediary or a U.S. branch of a foreign person) in the chain of payment before payment to you.

If you cannot satisfy the requirements of the portfolio interest exemption described above, then payments of interest (including original issue discount) made to you generally will be subject to United States federal withholding tax at the rate of 30%, unless either (i) you provide the applicable withholding agent with a properly executed IRS Form W-8BEN or W-8BEN-E establishing an exemption from or reduction of the withholding tax under the benefit of an applicable income tax treaty or (ii) the interest is effectively connected with your conduct of a trade or business in the United States and you satisfy the certification requirements described below.

If you are engaged in a trade or business in the United States and interest (including original issue discount) on a debt security is effectively connected with the conduct of that trade or business, you will be subject to United States federal income tax on such interest on a net income basis in generally the same manner as a United States holder, unless an applicable income tax treaty provides otherwise. Unless exempt from net income tax under an applicable income tax treaty, effectively connected interest income generally will not be subject to United States federal withholding tax if you satisfy certain certification requirements by providing the applicable withholding agent with a properly executed IRS Form W 8ECI or applicable successor form. If you are a non-United States holder that is treated as a foreign corporation for United States federal income tax purposes, you may also be subject to a branch profits tax at a 30% rate (or lower applicable treaty rate) on your effectively connected earnings and profits, subject to adjustments.

Purchase, Sale and Retirement of Debt Securities

Subject to the discussion of backup withholding below, you generally will not be subject to United States federal income or withholding tax on any gain realized on a sale, exchange, redemption, retirement or other taxable disposition of a debt security (other than any amount representing accrued but unpaid interest or original issue discount on the debt security, which will be treated as interest and will generally be subject to the rules discussed above under “— Interest”) unless:

- you are an individual who was present in the United States for 183 days or more in the taxable year of the disposition and certain other conditions are met; or
- the gain is effectively connected with your conduct of a trade or business in the United States.

If you are described in the first bullet point above, you generally will be subject to United States federal income tax at a flat rate of 30% (unless a lower treaty rate applies) on your gain from the disposition, which may be offset by certain United States-source capital losses. If you are described in the second bullet point above, you will be subject to U.S. federal income tax on such gain on a net income basis in generally the same manner as a United States holder, unless an applicable income tax treaty provides otherwise. If you are a non-United States holder that is treated as a foreign corporation for United States federal income tax purposes, you may also be subject to a branch profits tax at a 30% rate (or lower applicable treaty rate) on your effectively connected earnings and profits, subject to adjustments.

Estate Tax

A debt security held by an individual who at death is not a citizen or resident of the United States will not be includible in the individual's gross estate for United States federal estate tax purposes if:

- the decedent did not actually or constructively own 10% or more of the total combined voting power of all classes of our stock entitled to vote at the time of death; and
- the income on the debt security would not have been effectively connected with a U.S. trade or business of the decedent at the same time.

U.S. Treasury Regulations Requiring Disclosure of Reportable Transactions

U.S. Treasury regulations require United States taxpayers to report certain transactions that give rise to a loss in excess of certain thresholds (a “Reportable Transaction”). Under these regulations, if the debt securities are denominated in a foreign currency, a United States holder (or a non-United States holder that holds the debt securities in connection with a U.S. trade or business) that recognizes a loss with respect to the debt securities that is characterized as an ordinary loss due to changes in

currency exchange rates (under any of the rules discussed above) would be required to report the loss on Internal Revenue Service Form 8886 (Reportable Transaction Statement) if the loss exceeds the thresholds set forth in the regulations. For individuals and trusts, this loss threshold is \$50,000 in any single taxable year. For other types of taxpayers and other types of losses, the thresholds are higher. You should consult with your tax advisor regarding any tax filing and reporting obligations that may apply in connection with acquiring, owning and disposing of debt securities.

Backup Withholding and Information Reporting

United States Holders

In general, if you are a noncorporate United States holder, the applicable withholding agent is required to report to the United States Internal Revenue Service all payments of principal, any premium and interest on your debt security, and the accrual of original issue discount on an original issue discount debt security. In addition, the applicable withholding agent is required to report to the United States Internal Revenue Service any payment of proceeds of the sale of your debt security before maturity within the United States. Additionally, backup withholding will apply to any payments, including payments of original issue discount, if you fail to provide an accurate taxpayer identification number, or (in the case of interest payments) you are notified by the United States Internal Revenue Service that you have failed to report all interest and dividends required to be shown on your federal income tax returns.

You generally may obtain a refund of any amounts withheld under the U.S. backup withholding rules that exceed your income tax liability by filing a refund claim with the United States Internal Revenue Service.

Non-United States Holders

In general, if you are a non-United States holder, payments of principal, premium or interest, including original issue discount, made by the applicable withholding agent to you will not be subject to backup withholding and information reporting, provided that the certification requirements described above under “— Taxation of Debt Securities — Non-United States Holders” are satisfied or you otherwise establish an exemption. However, the applicable withholding agent is required to report payments of interest on your debt securities, including original issue discount, on Internal Revenue Service Form 1042-S even if the payments are not otherwise subject to information reporting requirements. In addition, payment of the proceeds from the sale of debt securities effected at a United States office of a broker will not be subject to backup withholding and information reporting if you have furnished to the payor or broker an appropriate IRS Form W-8, an acceptable substitute form or other documentation upon which it may rely to treat the payment as made to a non-United States person.

In general, payment of the proceeds from the sale of debt securities effected at a foreign office of a broker will not be subject to information reporting or backup withholding. However, a sale effected at a foreign office of a broker could be subject to information reporting in the same manner as a sale within the United States (and in certain cases may be subject to backup withholding as well) if (i) the broker has certain connections to the United States, (ii) the proceeds or confirmation are sent to the United States or (iii) the sale has certain other specified connections with the United States.

You generally may obtain a refund of any amounts withheld under the backup withholding rules that exceed your income tax liability by filing a refund claim with the Internal Revenue Service.

Foreign Account Tax Compliance Act (FATCA) Withholding

A U.S. law enacted in 2010 (commonly known as “FATCA”) could impose a withholding tax of 30% on interest income (including original issue discount) and other periodic payments on debt securities paid to you or any non-U.S. person or entity that receives such income (a “non-U.S. payee”) on your behalf, unless you and each such non-U.S. payee in the payment chain comply with the applicable information reporting, account identification, withholding, certification and other FATCA-related requirements. In the case of a payee that is a non-U.S. financial institution (for example, a clearing system, custodian, nominee or broker), withholding generally will not be imposed if the financial institution complies with the requirements imposed by FATCA to collect and report (to the U.S. or another relevant taxing authority) substantial information regarding such institution’s U.S. account holders (which would include some account holders that are non-U.S. entities but have U.S. owners). Other payees, including individuals, may be required to provide proof of tax residence or waivers of confidentiality laws and/or, in the case of non-U.S. entities, certification or information relating to their U.S. ownership.

Withholding may be imposed at any point in a chain of payments if the payee is not compliant. A chain may work as follows, for example: The payment is transferred through a paying agent to a clearing system, the clearing system makes a payment to each of the clearing system’s participants, and finally the clearing system participant makes a payment to a non-U.S. bank or broker through which you hold the debt securities, who credits the payment to your account. Accordingly, if you receive payments through a chain that includes one or more non-U.S. payees, such as a non-U.S. bank or broker, the payment could be subject to withholding if, for example, your non-U.S. bank or broker through which you hold the debt securities fails to comply with the FATCA requirements and is subject to withholding. This would be the case even if you would not otherwise have been directly subject to withholding.

A number of countries have entered into, and other countries are expected to enter into, agreements with the U.S. to facilitate the type of information reporting required under FATCA. While the existence of such agreements will not eliminate the risk that debt securities will be subject to the withholding described above, these agreements are expected to reduce the risk of the withholding for investors in (or investors that indirectly hold debt securities through financial institutions in) those countries.

The withholding tax described above could apply to all interest, including original issue discount, and other periodic payments on the debt securities. We will not pay any additional amounts in respect of this withholding tax, so if this withholding applies, you will receive less than the amount that you would have otherwise received.

Depending on your circumstances, you may be entitled to a refund or credit in respect of some or all of this withholding. However, even if you are entitled to have any such withholding refunded, the required procedures could be cumbersome and significantly delay your receipt of any withheld amounts. You should consult your own tax advisors regarding FATCA. You should also consult your bank or broker through which you would hold the debt securities about the likelihood that payments to it (for credit to you) may become subject to withholding in the payment chain.

In addition, your debt securities may also be subject to other U.S. withholding tax as described herein.

Taxation of Warrants

This subsection describes the material United States federal income tax consequences of owning, selling and disposing of the warrants. It deals only with U.S. dollar denominated warrants to acquire or

sell equity securities of issuers that are classified as corporations for U.S. federal income tax purposes (or indices consisting solely of such equity securities) and which are settled in cash (“cash-settled warrants”). In addition, the following discussion only deals with cash-settled warrants that are not listed on a securities exchange. The following discussion also assumes that the issuer of the underlying equity securities to which the cash-settled warrants relate (including any issuers of equity securities included in an index to which the cash-settled warrants relate) is neither a passive foreign investment company (as defined in Section 1297 of the Code) nor a United States real property holding corporation (as defined in Section 897 of the Code). The United States federal income tax consequences of warrants other than cash-settled warrants and warrants issued as part of a unit will be discussed in the applicable prospectus supplement.

The tax consequences of any particular warrant will depend on its terms, and any particular offering of warrants may have features or terms that cause the United States federal income tax treatment of the warrants to differ materially from the discussion below. An applicable prospectus supplement will discuss any material differences from the discussion below.

United States Holders

This subsection describes the tax consequences to a United States holder. You are a United States holder if you are a beneficial owner of a warrant and you are, for United States federal income tax purposes:

- a citizen or resident of the United States;
- a domestic corporation;
- an estate whose income is subject to United States 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.

If you are not a United States holder, this subsection does not apply to you and you should refer to “— Non-United States Holders” below.

Tax Treatment

Under current law, a cash-settled warrant should be treated as a cash-settled option for United States federal income tax purposes. The following discussion assumes that a cash-settled warrant will be treated as a cash-settled option for United States federal income tax purposes.

Assuming that the treatment of a cash-settled warrant as a cash-settled option for United States federal income tax purposes is respected, a United States holder should not be required to recognize taxable income over the term of the cash-settled warrant prior to settlement of the cash-settled warrant, other than pursuant to a sale or exchange of the cash-settled warrant prior to settlement.

A United States holder’s tax basis in a cash-settled warrant should equal the amount paid by the United States holder to acquire the cash-settled warrant.

Upon a sale or exchange of a cash-settled warrant, or upon a lapse or cash settlement of a cash-settled warrant, a United States holder should recognize capital gain or loss in an amount equal to the difference between the amount realized, if any, upon the sale, exchange, lapse or cash settlement of the cash-settled warrant and the United States holder’s tax basis in the cash-settled warrant sold,

exchanged, lapsed or cash settled. Any gain or loss recognized upon such sale, exchange, lapse or cash settlement should be short-term capital gain or loss if the United States holder has held the cash-settled warrant for one year or less and should be long-term capital gain or loss if the United States holder has held the cash-settled warrant for more than one year. Short-term capital gains are generally subject to tax at the marginal tax rates applicable to ordinary income.

Backup Withholding and Information Reporting

Backup withholding may apply in respect of payments on the cash-settled warrants and the payment of proceeds from a sale or other disposition of the cash-settled warrants, unless a United States holder provides proof of an applicable exemption or correct taxpayer identification number and otherwise complies with the applicable requirements of the backup withholding rules. The amounts withheld under the backup withholding rules are not an additional tax and may be refunded or credited against the United States holder's United States federal income tax liability, provided that the required information is timely provided to the Internal Revenue Service. In addition, information reports may be filed with the Internal Revenue Service in connection with payments on the cash-settled warrants and the payment of gross proceeds from a sale or other disposition of cash-settled warrants, unless the United States holder provides proof of an applicable exemption from the information reporting rules.

Non-United States Holders

This section only applies to a non-United States holder. A holder is a non-United States holder if such holder is a beneficial owner of a cash-settled warrant and is, for United States federal income tax purposes:

- a nonresident alien individual;
- a foreign corporation; or
- an estate or trust that in either case is not subject to United States federal income tax on a net income basis on income or gain from the cash-settled warrants.

The term "non-United States holder" does not include any of the following holders:

- an individual present in the United States for 183 days or more in the taxable year payments are received and who is not otherwise a resident of the United States for U.S. federal income tax purposes;
- certain former citizens or residents of the United States; or
- a holder for whom income or gain in respect of the cash-settled warrants is effectively connected with the conduct of a trade or business in the United States.

A non-United States holder should not be subject to United States federal income tax or withholding tax in respect of amounts paid to the Non-United States holder.

A non-United States holder may be subject to generally applicable information reporting and backup withholding requirements as discussed above under "United States Taxation — Taxation of Debt Securities — Backup Withholding and Information Reporting — Non-United States Holders" with respect to payments on the cash-settled warrants at maturity as well as in connection with the proceeds from a sale, exchange or other disposition of the cash-settled warrants, unless the non-United States holder complies with the requirements necessary to avoid backup withholding (in which case such non-United States holder will not be subject to such backup withholding) as set forth under "United States Taxation — Taxation of Debt Securities — Non-United States Holders" above.

In addition, the Treasury Department has issued regulations under which amounts paid or deemed paid on certain financial instruments (“871(m) financial instruments”) that are treated as attributable to U.S.-source dividends could be treated, in whole or in part depending on the circumstances, as a “dividend equivalent” payment that is subject to tax at a rate of 30% (or a lower rate under an applicable treaty), which in the case of any amounts a non-United States holder receives upon the sale, exchange, lapse or cash settlement of the cash-settled warrants, could be collected via withholding. If these regulations were to apply to the cash-settled warrants, the applicable withholding agent may be required to withhold such taxes if any U.S.-source dividends are paid with respect to the warrant property during the term of the cash-settled warrants. The applicable withholding agent could also require a non-United States holder to make certifications (e.g., an applicable Internal Revenue Service Form W-8) in order to avoid or minimize withholding obligations, and the applicable withholding agent could withhold accordingly (subject to a non-United States holder’s 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, 2027, 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). Unless otherwise specified in the applicable prospectus supplement, the cash-settled warrants will not be subject to withholding under these rules. The remainder of this discussion assumes that the cash-settled warrants will not be subject to withholding under these rules. In certain limited circumstances, however, a non-United States holder should be aware that it is possible for non-United States holders to be liable for tax under these rules with respect to a combination of transactions treated as having been entered into in connection with each other even when no withholding is required. A non-United States holder should consult their tax advisor concerning these regulations, subsequent official guidance and regarding any other possible alternative characterizations of the cash-settled warrants for United States federal income tax purposes.

Foreign Account Tax Compliance Act (FATCA) Withholding

Foreign Account Tax Compliance Act (FATCA) withholding (as described above under “United States Taxation — Taxation of Debt Securities — Foreign Account Tax Compliance Act (FATCA) Withholding”) should not apply to the cash-settled warrants.

PLAN OF DISTRIBUTION
Initial Offering and Sale of Securities

We may sell the securities from time to time in their initial offering as follows:

- through agents;
- to dealers or underwriters for resale;
- directly to purchasers; or
- through a combination of any of these methods of sale.

In some cases, we or dealers acting with us or on our behalf may also purchase securities and reoffer them to the public by one or more of the methods described above. This prospectus may be used in connection with any offering of our securities through any of these methods or other methods described in the applicable prospectus supplement.

The securities we distribute by any of these methods may be sold to the public, in one or more transactions, either:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to prevailing market prices; or
- at negotiated prices.

We may solicit offers to purchase securities directly from the public from time to time. We may also designate agents from time to time to solicit offers to purchase securities from the public on our behalf. If required, the prospectus supplement relating to any particular offering of securities will name any agents designated to solicit offers, and will include information about any commissions we may pay the agents, in that offering. Agents may be deemed to be “underwriters” as that term is defined in the Securities Act.

From time to time, we may sell securities to one or more dealers acting as principals. The dealers, who may be deemed to be “underwriters” as that term is defined in the Securities Act, may then resell those securities to the public.

We may sell securities from time to time to one or more underwriters, who would purchase the securities as principal for resale to the public, either on a firm-commitment or best-efforts basis. If we sell securities to underwriters, we may execute an underwriting agreement with them at the time of sale and will name them in the applicable prospectus supplement. In connection with those sales, underwriters may be deemed to have received compensation from us in the form of underwriting discounts or commissions and may also receive commissions from purchasers of the securities for whom they may act as agents. Underwriters may resell the securities to or through dealers, and those dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from purchasers for whom they may act as agents. The applicable prospectus supplement will include any required information about underwriting compensation we pay to underwriters, and any discounts, concessions or commissions underwriters allow to participating dealers, in connection with an offering of securities.

We may authorize underwriters, dealers and agents to solicit from third parties offers to purchase securities under contracts providing for payment and delivery on future dates. The applicable

prospectus supplement will describe the material terms of these contracts, including any conditions to the purchasers' obligations, and will include any required information about commissions we may pay for soliciting these contracts.

Underwriters, dealers, agents and other persons may be entitled, under agreements that they may enter into with us, to indemnification by us or The Goldman Sachs Group, Inc., as applicable, against certain liabilities, including liabilities under the Securities Act.

In connection with an offering, the underwriters may purchase and sell securities in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of securities than they are required to purchase in an offering. Stabilizing transactions consist of certain bids or purchases made for the purpose of preventing or retarding a decline in the market price of the securities while an offering is in progress.

The underwriters also may impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the underwriters have repurchased securities sold by or for the account of that underwriter in stabilizing or short-covering transactions.

These activities by the underwriters may stabilize, maintain or otherwise affect the market price of the securities. As a result, the price of the securities may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. These transactions may be effected on an exchange or automated quotation system, if the securities are listed on that exchange or admitted for trading on that automated quotation system, or in the over-the-counter market or otherwise.

The underwriters, dealers and agents, as well as their associates, may be customers of or lenders to, and may engage in transactions with and perform services for us, The Goldman Sachs Group, Inc. and our or its subsidiaries in the ordinary course of business. In addition, we expect to offer the securities to or through our affiliates, as underwriters, dealers or agents. Among our affiliates, GS&Co. may offer the securities for sale in the United States and Goldman Sachs International, Goldman Sachs (Asia) L.L.C. and Goldman Sachs (Singapore) Pte. may offer the securities for sale outside the United States. Our affiliates may also offer the securities in other markets through one or more selling agents, including one another.

GS&Co. is a subsidiary of The Goldman Sachs Group, Inc. and The Goldman Sachs Group, Inc. is our parent and the parent of GS&Co. FINRA Rule 5121 imposes certain requirements when a member of FINRA, such as GS&Co., distributes an affiliated company's securities. GS&Co. has advised us and The Goldman Sachs Group, Inc. that each particular offering of securities in which it participates will comply with the applicable requirements of Rule 5121 or any successor FINRA rule.

Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. Your prospectus supplement may provide that the original issue date for your securities may be more than two scheduled business days after the trade date for your securities. Accordingly, in such a case, if you wish to trade securities on any date prior to the second business day before the original issue date for your securities, you will be required, by virtue of the fact that your securities initially are expected to settle in more than two scheduled business days after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

Market-Making Resales by Affiliates

This prospectus may be used by GS&Co. in connection with offers and sales of the securities in market-making transactions. In a market-making transaction, GS&Co. may resell a security it acquires from other holders, after the original offering and sale of the security. Resales of this kind may occur in the open market or may be privately negotiated, at prevailing market prices at the time of resale or at related or negotiated prices. In these transactions, GS&Co. may act as principal or agent, including as agent for the counterparty in a transaction in which GS&Co. acts as principal, or as agent for both counterparties in a transaction in which GS&Co. does not act as principal. GS&Co. may receive compensation in the form of discounts and commissions, including from both counterparties in some cases. Our other affiliates or other affiliates of The Goldman Sachs Group, Inc. may also engage in transactions of this kind and may use this prospectus for this purpose. These affiliates may include, among others, Goldman Sachs International, Goldman Sachs (Asia) L.L.C. and Goldman Sachs (Singapore) Pte.

The securities to be sold in market-making transactions include securities to be issued after the date of this prospectus, as well as securities previously issued.

We do not expect to receive any proceeds from market-making transactions. We do not expect that GS&Co. or any other affiliate that engages in these transactions will pay any proceeds from its market-making resales to us.

Information about the trade and settlement dates, as well as the purchase price, for a market-making transaction will be provided to the purchaser in a separate confirmation of sale.

Unless we or our agent informs you in your confirmation of sale that your security is being purchased in its original offering and sale, you may assume that you are purchasing your security in a market-making transaction.

Matters Relating to Initial Offering and Market-Making Resales

Each series (or tranche, in the case of senior debt securities issued under the 2007 GSFC indenture) of securities will be a new issue, and there will be no established trading market for any security prior to its original issue date. We may choose not to list any particular series (or any particular tranche, in the case of senior debt securities issued under the 2007 GSFC indenture) of securities on a securities exchange or quotation system. We have been advised by GS&Co. that it intends to make a market in the securities, and any underwriters to whom we sell securities for public offering may also make a market in those securities. However, neither GS&Co. nor any underwriter 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 any of the securities.

Unless otherwise indicated in the applicable prospectus supplement or confirmation of sale, the purchase price of the securities will be required to be paid in immediately available funds in New York City.

In this prospectus, an offering of securities refers to the initial offering of the securities made in connection with their original issuance, and does not refer to any subsequent resales of securities in market-making transactions.

Market-Making Activities in USD LIBOR Securities

This prospectus may be used in market-making transaction by our affiliates in connection with securities that were initially issued prior to the date of this prospectus for which one-, three-, six-, or twelve month U.S. dollar LIBOR (“USD LIBOR”) serves as the reference rate used in connection with the calculation of the applicable interest or dividends payable in connection with such securities (“USD LIBOR Securities”).

On December 16, 2022, the Federal Reserve released the final rule implementing the Adjustable Interest Rate (LIBOR) Act (the “LIBOR Act”), which establishes benchmark replacements for contracts under U.S. law referencing USD LIBOR that lack a fallback to an alternative rate. Under the LIBOR Act and the regulations promulgated thereunder, references to USD LIBOR in any USD LIBOR Security that does not contain an appropriate fallback provision are automatically replaced with references to the Term SOFR Reference Rate for a comparable tenor, as published by CME Group Benchmark Administration, Ltd. (or any successor administrator) (“CME Term SOFR”), plus the statutorily prescribed tenor spread. In instances where a calculation agent has discretion to select an alternative benchmark replacement, the LIBOR Act provides a safe harbor for any person that elects to follow the prescribed alternative reference rate set forth in the LIBOR Act and the regulations promulgated thereunder.

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 any offering of the securities within the meaning of FINRA Rule 5121. Consequently, any offering of the securities will be conducted in compliance with the provisions of Rule 5121. GS&Co. will not be permitted to sell securities in any offering to an account over which it exercises discretionary authority without the prior specific written approval of the account holder.

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 securities.

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 securities are acquired by or on behalf of a Plan unless those securities are acquired and held pursuant to an available exemption. In general, available exemptions include: 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 securities, 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 securities, (b) none of the purchase, holding or disposition of the securities or the exercise of any rights related to the securities will result in a non-exempt 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 securities, 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 securities, 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 securities.

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

VALIDITY OF THE SECURITIES AND GUARANTEES

The validity of the securities that may be issued after the date of this prospectus, including the guarantees thereof, other than the debt securities of the series entitled "Medium-Term Notes, Series E," "Medium-Term Notes, Series F" and "Warrants, Series G," has been passed upon for us and The Goldman Sachs Group, Inc. by Sullivan & Cromwell LLP, New York, New York. The validity of the debt securities of the series entitled "Medium-Term Notes, Series E," "Medium-Term Notes, Series F" and "Warrants, Series G," including the guarantees thereof, that may be issued after the date of this prospectus has been passed upon for us and The Goldman Sachs Group, Inc. by Sidley Austin LLP, New York, New York. The validity of the debt securities of the series entitled "Medium-Term Notes, Series F" and "Warrants, Series G," including the guarantees thereof, that may be issued after the date of this prospectus has been passed upon for us and The Goldman Sachs Group, Inc. by Davis Polk & Wardwell LLP, New York, New York. The opinions of Sullivan & Cromwell LLP, Sidley Austin LLP and Davis Polk & Wardwell LLP were based on assumptions about future actions required to be taken by us, The Goldman Sachs Group, Inc. and the trustee in connection with the issuance and sale of the securities, about the specific terms of the securities and about other matters that may affect the validity of the securities but which could not be ascertained on the date of the relevant opinion.

Each of Sullivan & Cromwell LLP, Sidley Austin LLP and Davis Polk & Wardwell LLP has in the past represented and continues to represent Goldman Sachs on a regular basis and in a variety of matters. Sullivan & Cromwell LLP, Sidley Austin LLP and Davis Polk & Wardwell LLP also performed services for us and The Goldman Sachs Group, Inc. in connection with the offering of the securities described in this prospectus.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) of The Goldman Sachs Group, Inc. incorporated in this prospectus by reference to the Annual Report on Form 10-K of The Goldman Sachs Group, Inc. for the year ended December 31, 2023 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

With respect to the unaudited financial information of The Goldman Sachs Group, Inc. for (i) the three month periods ended March 31, 2024 and 2023, (ii) the three month and six month periods ended June 30, 2024 and 2023, and (iii) the three month and nine month periods ended September 30, 2024 and 2023, incorporated by reference in this prospectus, PricewaterhouseCoopers LLP reported that they have applied limited procedures in accordance with professional standards for a review of such information. However, their separate reports dated (i) May 2, 2024, (ii) August 1, 2024 and (iii) November 1, 2024, incorporated by reference herein, state that they did not audit and they do not express an opinion on that unaudited financial information. Accordingly, the degree of reliance on their report on such information should be restricted in light of the limited nature of the review procedures applied. PricewaterhouseCoopers LLP is not subject to the liability provisions of Section 11 of the Securities Act of 1933 for their reports on the unaudited financial information because those reports are not a "report" or a "part" of the registration statement prepared or certified by PricewaterhouseCoopers LLP within the meaning of Sections 7 and 11 of the Securities Act of 1933.

CAUTIONARY STATEMENT PURSUANT TO THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995

We have included or incorporated by reference in this prospectus statements that may constitute "forward-looking statements" within the meaning of the safe harbor provisions of The Private Securities Litigation Reform Act of 1995. These forward-looking statements are not historical facts but instead represent only our belief regarding future events, many of which, by their nature, are inherently uncertain and outside of our control. It is possible that our actual results may differ, possibly materially, from the anticipated results indicated in these forward-looking statements.

Information regarding important factors that could cause actual results to differ, perhaps materially, from those in our forward-looking statements is contained under "Risk Factors" in Part I, Item 1A of The Goldman Sachs Group, Inc. Annual Report on Form 10-K for the fiscal year ended December 31, 2023, which is incorporated in this prospectus by reference (and in any of our annual reports for a subsequent fiscal year that are so incorporated). See "Available Information" above for information about how to obtain a copy of this annual report.

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 or in any free writing prospectuses we have prepared. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may provide. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of its date.

TABLE OF CONTENTS

Available Information	2
Prospectus Summary	4
Risks Relating to Regulatory Resolution Strategies and Long-Term Debt Requirements	9
Use of Proceeds	14
Description of Debt Securities We May Offer	15
Description of Warrants We May Offer	68
Description of Units We May Offer	86
GS Finance Corp.	91
Legal Ownership and Book-Entry Issuance	93
Considerations Relating to Indexed Securities	101
Considerations Relating to Securities Denominated Or Payable in or Linked to a Non-U.S. Dollar Currency	102
United States Taxation	105
Plan of Distribution	123
Conflicts of Interest	127
Employee Retirement Income Security Act	128
Validity of the Securities and Guarantees	129
Independent Registered Public Accounting Firm	130
Cautionary Statement Pursuant to the Private Securities Litigation Reform Act of 1995	130

\$268,236,207,754

GS Finance Corp.

Debt Securities

Warrants

Units

guaranteed as described herein by

**The Goldman Sachs
Group, Inc.**



Goldman Sachs & Co. LLC