

## **DODD-FRANK SWAP DEALER DISCLOSURES AND NOTIFICATIONS**

The following disclosures and notifications are provided to you in accordance with the requirements set forth in Part 23 of the CFTC Regulations in connection with any transactions in Swaps between you and any of the below Goldman Sachs entities, each of which has been registered as a swap dealer with the CFTC in accordance with the CEA and applicable regulations of the CFTC (each a “Swap Dealer”).

- Goldman Sachs Bank USA,
- Goldman Sachs & Co. LLC,
- Goldman Sachs International,
- J. Aron & Company LLC,
- Goldman Sachs Financial Markets, L.P.,
- Goldman Sachs Mitsui Marine Derivative Products, L.P.,
- Goldman Sachs Japan Co., Ltd.,
- Goldman Sachs Paris Inc. et Cie,
- Goldman Sachs Financial Markets Pty. Ltd.,
- J. Aron & Company (Singapore) Pte,
- Goldman Sachs Mexico, Casa de Bolsa, S.A. de C.V., and
- Goldman Sachs Bank Europe SE

These disclosures and notifications are also provided to you in accordance with the requirements set forth in Part 17 of the SEC Regulations in connection with any transactions in Security-Based Swaps between you and any of the below listed Goldman Sachs entities that have been registered as a security-based swap dealer with the SEC in accordance with the Securities Exchange Act of 1934 (each a “Security-Based Swap Dealer”).

- Goldman Sachs & Co. LLC
- Goldman Sachs Bank USA
- Goldman Sachs Financial Markets, L.P.
- Goldman Sachs International
- Goldman Sachs Bank Europe SE

The definitions for terms used in this document are contained in Part II below.

### **I. DISCLOSURES AND NOTIFICATIONS**

*(Please note that some of the below disclosures and/or notifications may not apply to you if you are not a U.S. person as defined in the CFTC’s Interpretive Guidance and are transacting with any Swap Dealer organized outside the United States. Further note that, pursuant to SEC Regulation 240.3a71-3, some of the below disclosure and/or notifications may not apply to you if you are not a U.S. person or you are a U.S. person conducting a Security-Based Swap through a foreign branch and are transacting with any Security-Based Swap Dealer organized outside of the United States or that is organized within the United States but is conducting a Security-Based Swap through a foreign branch.)*

**A. Material Risks**

Please see the “*ISDA General Disclosure Statement for Transactions*” under the “General Disclosures” tab as well as the ISDA and other disclosures contained under the “Product Specific Disclosures” tab for material risks related to Swaps and Security-Based Swaps required to be provided to you pursuant to CFTC Regulation 23.431(a)(1) and SEC Regulation 240.15Fh-3(b)(1)(i), respectively.

**B. Material Economic Terms**

Please see the “Product Specific Disclosures” tab for the material economic terms (“MET”) of Swaps and Security-Based Swaps required to be provided to you pursuant to CFTC Regulation 23.431(a)(2) and SEC Regulation 240.15Fh-3(b)(1)(ii), respectively. The MET templates contained under the “Product Specific Disclosures” tab are subject to and incorporate (i) the relevant ISDA master agreement and Credit Support Annex, if any, or such other master trading agreement and related collateral agreement(s), if any, as previously executed between the parties, (ii) the relevant master-master netting or portfolio netting agreements, if any, as previously executed between the parties, and (iii) any relevant prime brokerage execution or give-up compensation agreement, master confirmation agreement, trading convention side letter or other similar agreement in writing between the parties.

Each of the MET templates for the products specified under the “Product Specific Disclosures” tab describing a transaction that if executed between you and Swap Dealer would be subject to a mandatory clearing requirement under the CEA, or if executed between you and Security-Based Swap Dealer would be subject to a mandatory clearing requirement under the Securities Exchange Act, shall be deemed to provide that such transaction be submitted for clearing to either the registered derivatives clearing organization (“DCO”) as agreed between you and Swap Dealer, or the clearing agency as agreed between you and Security-Based Swap Dealer, as applicable.

**C. Material Conflicts of Interest**

Please see Annex A for disclosures related to:

- a) Some of the material conflicts of interest that may arise between you and Swap Dealer where Swap Dealer performs services for you with respect to futures, options on futures, swaps, forwards or other commodity derivatives, which are required to be provided to you pursuant to CFTC Regulation 23.431(a)(3); and
- b) Some of the material incentives Security-Based Swap Dealer may have, or material conflicts of interest that may arise between you and Security-Based Swap Dealer, where Security-Based Swap Dealer performs services for you with respect to Security-Based Swaps. Disclosures may not be available in Annex A provided that your identity is not known at a

reasonably sufficient time prior to execution. All disclosures made in writing pursuant to this Regulation will supersede oral disclosures made by Security-Based Swap Dealer.

**D. Pre-Trade Mid-Market Mark Methodology**

Please see Annex B for disclosures related to the methodology used by Swap Dealer in providing you with pre-trade mid-market marks as required pursuant to CFTC Regulation 23.431(a)(3).

**E. Scenario Analyses**

With respect to each Swap between you and Swap Dealer that is not “available for trading” (as that phrase is used in the CFTC Regulations), prior to a Swap Transaction Event you may request, and consult on the design of, a scenario analysis to allow you to assess your potential exposure in connection with such Swap in accordance with CFTC Regulation 23.431(b).

**F. Daily Marks**

1. We are required to provide daily marks (“DF daily mark”) to you only with respect to uncleared Swaps or uncleared Security-Based Swaps, in accordance with regulations CFTC Regulation 23.431(d)(2) and SEC Regulation 240.15Fh-3(c)(2), respectively.
2. For cleared Swaps originally executed between you and Swap Dealer, you have the right, upon request, to receive a DF daily mark from the FCM through which you clear such cleared Swap or the relevant DCO or another third party in accordance with CFTC Regulation 23.431(d)(1).
3. For cleared Security-Based Swaps originally executed between you and Security- Based Swap Dealer, you have the right, upon request, to receive the DF daily mark the clearing member receives from the appropriate clearing agency through which you clear such Security-Based Swap, in accordance with SEC Regulation 240.15Fh-3(c)(1). Such DF daily mark may be provided directly by the Security-Based Swap Dealer or through a third party.
4. Any DF daily mark we provide to you may not necessarily, and would often not be expected to, be a price at which either we or you would agree to replace or terminate a Swap or Security-Based Swap; include adjustments you need to make internally to account for your credit reserves, funding or liquidity costs; unless otherwise expressly agreed, be the basis for margin calls and maintenance of collateral; or be the value of the Swap or Security-Based Swap that is marked on our books and records.
5. Pursuant to Section 4s(h)23.431(d) of the CEA, the DF daily mark is exclusive of several additional factors that may influence our pricing of

Swaps, namely, profit, credit reserves, hedging costs, funding and liquidity or any other costs or adjustments.

6. DF daily marks take into account unsettled cash payments due from one party to the other. DF daily marks are provided only in respect of Swap or Security-Based Swap transactions that have not terminated or been novated or otherwise transferred to a third party, notwithstanding any unsettled cash payments that may remain in respect of such a terminated, novated or otherwise transferred Swap transaction.
7. DF daily marks are not provided in respect of your entire portfolio. No DF daily mark is provided with respect to any Swap transactions with a Goldman Sachs affiliate that is not a Swap Dealer or in respect of any derivatives transaction that is not regulated by the CFTC. Likewise, no DF daily mark is provided with respect to any Security-Based Swap transaction with a Goldman Sachs affiliate that is not a Security-Based Swap Dealer.
8. Unless otherwise agreed with Swap Dealer or Security-Based Swap Dealer in writing, any DF daily marks provided by Swap Dealer or Security-Based Swap Dealer, as applicable, to you will be calculated as of the close of business on the prior Business Day in the locality specified in the notice of such DF daily mark to you, such locality to be consistently specified with regard to a class or type of Swaps or Security-Based Swaps, as applicable. Also, each DF daily mark will be expressed in terms of a position of a specified size, and will be applicable only with respect to that size and may not reflect the mark that would be calculated with respect to a position or transaction of any other size.
9. For additional disclosures on the methodology and assumptions we use to prepare the DF daily marks, please see Annex C.

**G. Clearing**

1. With respect to any Swap entered into between you and Swap Dealer that is subject to the mandatory clearing requirements under Section 2(h) of the CEA, you have the sole right to select the DCO at which the Swap will be cleared in accordance with CFTC Regulation 23.432(a).
2. With respect to any Security-Based Swap entered into between you and Security-Based Swap Dealer that is subject to the mandatory clearing requirements under Section 3C(a) of the Securities Exchange Act, you have the sole right to select the clearing agency at which the Security-Based Swap will be cleared, in accordance with SEC Regulation 240.15Fh-3(d)(1). For a general list clearing agencies that clear security-based swaps and which security-based swaps each clearing agency clears, please refer to the list published by ISDA here: <https://www.isda.org/2021/05/03/current-security-based-swap-clearing/>. Of those clearing agencies, certain

Security-Based Swap Dealers are authorized or permitted, directly or through a designated clearing member, to clear Security-Based Swaps at the following: ICE Clear Credit LLC, ICE Clear Europe Limited, and LCH SA.

3. With respect to any Swap entered into between you and Swap Dealer that is not subject to the mandatory clearing requirements under Section 2(h) of the CEA, you may elect to clear such Swap and you have the sole right to select the DCO at which the Swap will be cleared in accordance with CFTC Regulation 23.432(b).
4. With respect to any Security-Based Swap entered into between you and Security-Based Swap Dealer that is not subject to the mandatory clearing requirements under Section 3C(a) of the Exchange Act, but may be accepted for clearing by one or more clearing agency as determined by Security-Based Swap Dealer, you may elect to clear such Security-Based Swap. If you elect to clear such Security-Based Swap, you have the sole right to select the clearing agency through which to clear, so long as it is one of the clearing agencies at which Security-Based Swap Dealer is authorized or permitted, directly or through a designated clearing member, to clear the applicable Security-Based Swap, in accordance with SEC Regulation 240.15Fh-3 (d)(2)(iii). For a general list clearing agencies that clear security-based swaps and which security-based swaps each clearing agency clears, please refer to the list published by ISDA here: <https://www.isda.org/2021/05/03/current-security-based-swap-clearing/>. Of those clearing agencies, certain Security-Based Swap Dealers are authorized or permitted, directly or through a designated clearing member, to clear Security-Based Swaps at the following: ICE Clear Credit LLC, ICE Clear Europe Limited, and LCH SA.
5. The decision by the clearing unit of Swap Dealer or of any affiliated clearing member of a DCO, or of Security-Based Swap Dealer or of any designated clearing member of a clearing agency, to provide Swaps or Security-Based Swaps services to you is determined based on some or all of the following criteria: (i) your credit profile, (ii) your capital and other financial resources, (iii) your expertise in trading complex financial products, including Swaps or Security-Based Swaps, as applicable, (iv) your operational, liquidity and risk management capabilities in trading financial products, including Swaps, or Security-Based Swaps, as applicable, (v) the types of Swaps or Security-Based Swaps that you intend to trade and clear at the clearing unit of Swap Dealer, Security-Based Swap Dealer or any affiliate thereof, (vi) whether the clearing unit of Swap Dealer, Security-Based Swap Dealer, or any affiliate thereof has the ability to clear the Swaps or Security-Based Swaps you are intending to trade, (vii) whether commercial and legal terms can be agreed with you, (viii) the approach you take to legal and compliance issues, (ix) your satisfaction of the client on-boarding requirements of the clearing unit of Swap Dealer, Security-Based Swap Dealer, or its affiliates, (x) credit exposure, capital and other financial resources/condition of the

clearing unit of Swap Dealer, Security-Based Swap Dealer, or its affiliates, and (xi) any other relevant objective considerations.

6. Upon acceptance of a Swap or Security-Based Swap by a DCO or Clearing Agency:
  - a) the original Swap or Security-Based Swap is extinguished,
  - b) the original Swap or Security-Based Swap is replaced by equal and opposite Swaps or Security-Based Swaps with the DCO or Clearing Agency, and
  - c) all terms of the Swap or Security-Based Swap shall conform to the product specifications of the cleared Swap or Security-Based Swap established under the rules of the DCO or Clearing Agency.

#### **H. Special Entity Status**

If you are an employee benefit plan defined in Section 3 of ERISA that is not subject to Title I of ERISA, you may elect to be treated as a special entity pursuant to CFTC Regulation 23.430(c).

If you are an employee benefit plan defined in Section 3 of ERISA that is not subject to Title I of ERISA, you will be treated as a special entity unless you elect to **not** be treated as such pursuant to SEC Regulation 240.15Fh-3(a)(3) and 240.15Fh-2(d)(4) by notifying Security-Based Swap Dealer of such election prior to entering into a Security-Based Swap with such Security-Based Swap Dealer.

#### **I. Recommendations**

As of each Swap Communication Event, Swap Dealer discloses to you in accordance with CFTC Regulations 23.434(b)(3) and 23.440(b)(2)(iii) that (a) Swap Dealer is not undertaking to act in your best interests and (b) Swap Dealer is acting in its capacity as a counterparty and is not undertaking to assess the suitability of any Swap or trading strategy involving a Swap for you.

As of each Security-Based Swap Communication Event, Security-Based Swap Dealer discloses to you in accordance with SEC Regulation 240.15Fh-3(f)(2)(iii) that it is acting in its capacity as a counterparty and is not undertaking to assess the suitability of any Security-Based Swap, or trading strategy involving a Security-Based Swap for you.

#### **J. Segregation of Initial Margin**

If you supply funds or other property to Swap Dealer to margin, guarantee, or secure your obligations to Swap Dealer under an uncleared Swap, you have the right in accordance with CFTC Regulation 23.701(a)(1) to require segregation of those funds or other property other than with respect to variation margin payments. This

notification is deemed to be effective prior to execution of the first uncleared swap transaction.

If you supply funds or other property to Security-Based Swap Dealer to margin, guarantee, or secure your obligations to Security-Based Swap Dealer under an uncleared Security-Based Swap, you have the right in accordance with SEC Regulations 240.15c3-3(p)(4)(i) and 240.18a-4(d)(1) and 15 U.S.C. § 78c-5(f) to request individual segregation of those funds at any time. This right to require segregation applies only to Security-Based Swaps that are not submitted for clearing to a Clearing Agency and does not apply to variation margin payments. Any transactions you enter into with Goldman Sachs & Co. LLC, which is registered with the SEC as a broker-dealer, are subject to omnibus segregation requirements for uncleared Security-Based Swap collateral in excess of current exposure under SEC Regulation 240.15c3-3, unless you elect individual segregation and execute a valid subordination agreement.

Transactions with any other Security-Based Swap Dealer, none of which are registered with the SEC as broker-dealers, are exempt from omnibus segregation requirements pursuant to SEC Regulation 240.18a-4(f). Additional details about treatment of claims for margin collateral in the event of an insolvency proceeding in respect of each of these Security-Based Swap Dealers are provided in Annex D.

Please contact your Goldman Sachs sales representative if you would like further information on how to make a segregation election.

**K. Variation Margin Calculation Methodology Overview**

In accordance with CFTC Rule §23.155(b)(1), an overview of the methodology to calculate a reasonable approximation of the variation margin requirement used by Swap Dealer is available to you upon request. Please contact your Goldman Sachs sales representative if you would like further information.

**L. Orderly Liquidation Authority**

1. Goldman Sachs Bank USA is an Insured Depository Institution. None of the other Swap Dealers or Security-Based Swap Dealers are Insured Depository Institutions.

The following Swap Dealers and Security-Based Swap Dealers are Financial Companies:

- a) Goldman Sachs Bank USA,
- b) Goldman Sachs & Co. LLC,
- c) J. Aron & Company LLC,
- d) Goldman Sachs Financial Markets, L.P., and

e) Goldman Sachs Mitsui Marine Derivative Products, L.P.

Except those listed above, none of the other Swap Dealers or Security-Based Dealers are Financial Companies.

2. We have made a determination whether you are an Insured Depository Institution or a Financial Company based on the other information you have provided to us as part of your relationship with us. If you wish to provide us with additional information regarding your status as an Insured Depository Institution or Financial Company, please contact your Goldman Sachs sales representative.
3. In the event that a party is (i) a Covered Financial Company or (ii) an Insured Depository Institution for which the FDIC has been appointed as a receiver (the “covered party”): certain limitations under Title II of the Dodd-Frank Act or the FDIA may apply to the rights of the non-covered party to terminate, liquidate, or net any Swap or Security-Based Swap by reason of the appointment of the FDIC as receiver, notwithstanding the agreement of the parties; and the FDIC may have certain rights to transfer Swaps or Security-Based Swaps of the covered party under Section 210(c)(9)(A) of the Dodd-Frank Act, 12 U.S.C. § 5390(c)(9)(A), or 12 U.S.C. § 1821(e)(9)(A).

**M. Address for Complaints**

Set forth below for each Swap Dealer are the physical address, email, and telephone number of the department to which any complaints may be directed:

***Goldman Sachs Bank USA***  
***Goldman Sachs & Co. LLC***  
***J. Aron & Company LLC***  
***Goldman Sachs Financial Markets, L.P.***  
***Goldman Sachs Mitsui Marine Derivative Products, L.P.***

Address for complaints: Attn: SLC-Compliance  
222 South Main Street, 10th Floor  
Salt Lake City, UT 84101 Telephone: 1-800-324-2895  
E-mail: [gs-complaints-america@gs.com](mailto:gs-complaints-america@gs.com)

***Goldman Sachs International***

Address for complaints:  
Attn: GSI-Compliance Plumtree Court, 25 Shoe Lane  
London EC4A 4AU United Kingdom Telephone: 44-20-7774-1000  
E-mail: [gs-gsi-cftc-complaints@gs.com](mailto:gs-gsi-cftc-complaints@gs.com)



***Goldman Sachs Japan Co., Ltd.***

Address for complaints:  
Attn: Yuichi Miura, Compliance Officer  
Roppongi Hills Mori Tower, 47th floor 10-1  
Roppongi 6-chome  
Minato-ku, Tokyo 106-6147 Japan  
Tel: 81-3-6437-1000  
E-mail: [gs-gsjcl-cftc-complaints@gs.com](mailto:gs-gsjcl-cftc-complaints@gs.com)

***Goldman Sachs Paris Inc. et Cie***

Address for complaints:  
Attn: Jean-Nicolas Barbier,  
Compliance Officer  
5, Avenue Kleber  
75116 Paris, France  
Tel: +33-1-4212-1000  
Email: [gs-gspc-cftc-complaints@gs.com](mailto:gs-gspc-cftc-complaints@gs.com)

***Goldman Sachs Financial Markets Pty. Ltd.***

Address for complaints:  
Attn: Keith Birch, Compliance Officer  
Level 46, Governor Philip Tower  
1 Farrer Place  
Sydney, NSW 2000, Australia  
Tel: +61-2-9320-1406  
Email: [gs-gaus-cftc-complaints@gs.com](mailto:gs-gaus-cftc-complaints@gs.com)

***J. Aron & Company (Singapore) Pte.***

Address for complaints:  
Attn: Ken Ng, Compliance Officer  
1 Raffles Link #07-01, South Lobby  
Singapore 039393  
Tel: (65) 6889 2399  
Email: [gs-jasg-cftc-complaints@gs.com](mailto:gs-jasg-cftc-complaints@gs.com)

***Goldman Sachs México, Casa de Bolsa, S.A. de C.V.***

Address for complaints:  
Attn: Alfonso Tena, Compliance Officer  
Avenida Prado Sur 250, Piso 1  
Colonia Lomas de Chapultepec  
Delegación Miguel Hidalgo  
Ciudad de México, México 11000  
Email: [gs-oficial-de-cumplimiento@gs.com](mailto:gs-oficial-de-cumplimiento@gs.com)

***Goldman Sachs Bank Europe SE***

Address for complaints:  
Attn: Michael Bartsch, Chief Compliance Officer  
Marienturm  
Taunusanlage 9-10  
D – 60329 Frankfurt am Main, Germany  
Telephone: +49 69 7532 1000  
Email: [GSBE-Complaints@gs.com](mailto:GSBE-Complaints@gs.com)

Set forth below for each Security-Based Swap Dealer are the physical address, email, and telephone number of the department to which any complaints may be directed:

***Goldman Sachs & Co. LLC***  
***Goldman Sachs Bank USA***  
***Goldman Sachs Financial Markets, L.P.***  
***Goldman Sachs International***  
***Goldman Sachs Bank Europe SE***

**II. DEFINED TERMS**

“**Business Day**” means a day on which commercial banks are open for general business (including dealings in foreign exchange and foreign currency deposits).

“**CEA**” means the U.S. Commodity Exchange Act.

“**CFTC**” means the U.S. Commodity Futures Trading Commission.

“**CFTC Regulations**” means the rules, regulations, orders and interpretations published or issued by the CFTC.

“**Clearing Agency**” means a “clearing agency,” as defined in Section 3(a)(23)(A) of the Securities Exchange Act of 1934, as amended, and SEC rules thereunder.

“**Covered Financial Company**” means a “covered financial company,” as defined in Section 201(a)(8) of the Dodd-Frank Act, 12 U.S.C. § 5381(a)(8).

“**DCO**” means a “derivatives clearing organization” as such term is defined in Section 1a(15) of the CEA and the CFTC Regulations.

“**ERISA**” means the Employee Retirement Income Security Act of 1974, as amended.

“**Exchange Act**” means the Securities Exchange Act of 1934.

“**FCM**” means a futures commission merchant subject to regulation under the CEA.

**“Financial Company”** means a “financial company,” as defined in Section 201(a)(11) of the Dodd-Frank Act, 12 U.S.C. § 5381(a)(11).

**“Insured Depository Institution”** means an “insured depository institution,” as defined in 12 U.S.C. § 1813.

**“Interpretive Guidance”** means the *Interpretive Guidance and Policy Statement Regarding Compliance with Certain Swap Regulations*, 78 Fed. Reg. 45292 (July 26, 2013), as amended or supplemented by the CFTC from time to time.

**“SEC”** means the Securities Exchange Commission.

**“Security-Based Swap”** means a “security-based swap” as defined in Section 3(68) of the Securities Exchange Act (15 U.S.C. 78c(a)(68)) and the SEC Regulation 240.3a68-5.

**“Swap”** means a “swap” as defined in Section 1a(47) of the CEA and CFTC Regulation 1.3. The term “Swap” also includes any foreign exchange swaps and foreign exchange forwards that may be exempted from regulation as “swaps” by the U. S. Secretary of the Treasury pursuant to authority granted by Section 1a(47)(E) of the CEA.

**“Security-Based Swap Communication Event”** means, with respect to you and Security-Based Swap Dealer, each (1) Security-Based Swap Transaction Event, (2) offer to enter into a Security-Based Swap Transaction Event, and (3) “recommendation” (as such term is used in SEC Regulation 240.15Fh-3) with respect to a Security-Based Swap or trading strategy involving a Security-Based Swap.

**“Security-Based Swap Transaction Event”** means, with respect to you and Security-Based Swap Dealer, the execution of a new Security-Based Swap or any material amendment, mutual unwind or novation of an existing Security-Based Swap.

**“Swap Communication Event”** means, with respect to you and Swap Dealer, each (1) Swap Transaction Event, (2) offer to enter into a Swap Transaction Event, and (3) “recommendation” (as such term is used in CFTC Regulation 23.434 and 23.440) with respect to a Swap or trading strategy involving a Swap.

**“Swap Transaction Event”** means, with respect to you and Swap Dealer, the execution of a new Swap or any material amendment, mutual unwind or novation of an existing Swap.

**MATERIAL CONFLICTS OF INTEREST AND MATERIAL INCENTIVES**  
**DISCLOSURE**

Some material conflicts of interest may arise between you and Swap Dealer where Swap Dealer performs services for you with respect to futures, options on futures, swaps (as defined in the CEA), forwards or other commodity derivatives, or between you and Security-Based Swap Dealer where Security-Based Swap Dealer performs services for you with respect to Security-Based Swaps (collectively with services performed by Swap Dealer, “Contracts”).

These conflicts of interests can arise in particular when Swap Dealer or Security-Based Swap Dealer has an economic or other incentive to act, or persuade you to act, in a way that favors Swap Dealer, Security-Based Swap Dealer, or its respective affiliates.

Under applicable law, including regulations of the CFTC and the SEC, not all Swaps are required to be executed on an exchange, a swap execution facility, or a security-based swap execution facility (each, a “Trading Facility”), even if a Trading Facility lists the Swap or Security-Based Swap, as applicable, for trading. In such circumstances, it may be financially advantageous for Swap Dealer, Security-Based Swap Dealer, or its respective affiliate to execute a Swap or Security-Based Swap with you bilaterally in the over-the-counter market rather than on a Trading Facility and, to the extent permitted by applicable law, we may have an incentive to persuade you to execute your Swap or Security-Based Swap bilaterally.

Applicable law may permit you to choose the CFTC-registered DCO to which you submit a Swap for clearing. You should be aware that Swap Dealer may not be a member of, or may not otherwise be able to submit your Swap to, the DCO of your choice. Applicable law may also permit you to choose the SEC-registered clearing agency to which you submit a Security-Based Swap for clearing. The Security-Based Swap dealer may not be a member of, or may not otherwise be able to submit your Security-Based Swap to, the clearing agency of your choice. Consequently, Swap Dealer or Security Based-Swap Dealer, as applicable, may have an incentive to persuade you to use a DCO or clearing agency of which it or its affiliate is a member.

You also should be aware that Swap Dealer, Security-Based Swap Dealer, or an affiliate of these may own stock in, or have some other form of ownership interest in, one or more U.S. or foreign Trading Facilities or DCOs where your Contracts may be executed and/or cleared. As a result, Swap Dealer, Security-Based Swap Dealer, or a respective affiliate may receive financial or other benefits related to its ownership interest when Contracts are executed on a given Trading Facility or cleared through a given DCO or clearing agency, and Swap Dealer or Security-Based Swap Dealer would, in such circumstances, have an incentive to cause applicable Contracts to be executed on that Trading Facility or cleared by that DCO or clearing agency. In addition, directors, officers and employees of Swap Dealer, Security-Based Swap Dealer, or an affiliate may also serve on the board of directors or on one or more committees of a Trading Facility, DCO, or clearing agency.

In addition, Trading Facilities, DCOs, and clearing agencies may from time to time have in place other arrangements that provide their members or participants with volume, market-making or

other discounts or credits, may call for members or participants to pre-pay fees based on volume thresholds, or may provide other incentives or arrangements that are intended to encourage market participants to trade on, or direct trades to, that Trading Facility, DCO, or clearing agency. Swap Dealer, Security-Based Swap Dealer, or an affiliate may participate in and obtain financial benefits from such incentive programs.

When Swap Dealer or Security-Based Swap Dealer provides execution services to you (either in conjunction with clearing services or in an execution-only capacity), Swap Dealer or Security-Based Swap Dealer may direct orders to affiliated or unaffiliated market-makers, other executing firms, individual brokers or brokerage groups for execution. When such affiliated or unaffiliated parties are used, they may, where permitted, agree to price concessions, volume discounts or refunds, rebates or similar payments in return for receiving such business. Likewise, where permitted by law and the rules of the applicable Trading Facility, Swap Dealer, Security-Based Swap Dealer, or an affiliate of these may solicit a counterparty to trade opposite your order or enter into transactions for its own account or the account of other counterparties that may, at times, be adverse to your interests in a Contract. In such circumstances, that counterparty may make payments and/or pay a commission to Swap Dealer, Security-Based Swap Dealer, or an affiliate of these, in connection with that transaction. The results of your transactions may differ significantly from the results achieved by Swap Dealer or the Security-Based Swap Dealer for its own account, its affiliates, or for other customers.

In addition, where permitted by applicable law (including, where applicable, the rules of the applicable Trading Facility), Swap Dealer, Security-Based Swap Dealer, and either of its directors, officers, employees or affiliates may act on the other side of your order or transaction by the purchase or sale for an account, or the execution of a transaction with a counterparty, in which Swap Dealer, Security-Based Swap Dealer, or a person affiliated with either dealer has a direct or indirect interest, or may affect any such order with a counterparty that provides Swap Dealer, Security-Based Swap Dealer, or its respective affiliates with discounts related to fees for Contracts or other products. In cases where Swap Dealer or Security-Based Swap Dealer has offered you a discounted commission or clearing fee for the applicable Contract executed through it as agent or with it or its affiliate acting as counterparty, Swap Dealer, Security-Based Swap Dealer, or its affiliates may be doing so because of the enhanced profit potential resulting from acting as executing broker or counterparty.

Swap Dealer, Security-Based Swap Dealer, or its respective affiliates may act as, among other things, an investor, research provider, placement agent, underwriter, distributor, remarketing agent, structurer, securitizer, lender, investment manager, investment adviser, commodity trading advisor, municipal advisor, market maker, trader, prime broker or clearing broker. In those and other capacities, Swap Dealer, Security-Based Swap Dealer, or its respective directors, officers, employees and affiliates may take or hold positions in, or advise other customers and counterparties concerning, or publish research or express a view with respect to, a Contract or a related financial instrument that may be the subject of advice from Swap Dealer or its affiliates to you. Any such positions and other advice may not be consistent with, or may be contrary to, your interests or to positions that are the subject of advice previously provided by Swap Dealer, Security-Based Swap Dealer, or its respective affiliate to you, and unless otherwise disclosed in writing, Swap Dealer, Security-Based Swap Dealer, or its respective affiliates are not necessarily acting in your best interest and are not assessing the suitability for you of any Contract or related

financial instrument. Swap Dealer, Security-Based Swap Dealer, or its respective affiliates may also facilitate the activities of other counterparties, or hedge transactions it has entered into with other counterparties, which transactions may have adverse effects on the value of the assets underlying any Swap entered into between you and Swap Dealer, or a Security-Based Swap entered into between you and Security-Based Swap Dealer. Acting in one or more of the capacities noted above may give Swap Dealer, Security-Based Swap Dealer, or its respective affiliates access to information relating to markets, investments and products. As a result, Swap Dealer, Security-Based Swap Dealer, or any of its affiliates may be in possession of information which, if known to you, might cause you to seek to dispose of, retain or increase your position in one or more Contracts or other financial instruments. Swap Dealer, Security-Based Swap Dealer, and its affiliates will be under no duty to make any such information available to you, except to the extent we have agreed in writing or as may be required under applicable law.

**PRE-TRADE MID-MARKET MARK DISCLOSURE**

The “pre-trade mid-market mark” (“DF mid”) that is required to be provided to you in accordance with CFTC Regulation 23.431(a)(3) for a Swap is prepared by discounting projected future cashflows of the swap to arrive at a current value. For each asset class, spot and forward curves, correlation and volatility levels are determined on the basis of observable market inputs when available and on the basis of estimates when observable market inputs are not available. These spot and forward curves, correlation and volatility levels are used to estimate future cashflows that are not certain (for example floating interest rates or options). In some cases, we may use probabilistic models to determine the expected value of future cashflows. These estimated cashflows, along with future cashflows that are known with certainty, are then discounted to their present value using discount factors derived from relevant market inputs. Unless otherwise specified, the discounting rate used for all Swaps is an overnight rate.

In our sole discretion, we may use a variety of methodologies to prepare the estimated cashflows described above, including without limitation, preparing Monte Carlo simulations, utilizing Black-Scholes, or other mathematical pricing models. In our sole discretion, we may vary the inputs used in such simulations and modeling, and we are under no obligation to disclose to you the methodology used or the inputs thereto.

Any DF mid we provide to you may not necessarily, and would often not be expected to be a price at which either we or you would agree to enter into or terminate a Swap; include adjustments you need to make internally to account for your credit reserves, funding or liquidity costs; unless otherwise expressly agreed, be the basis for margin calls and maintenance of collateral; or be the value of the Swap that is marked on our books and records.

Pursuant to Section 4s(h)23.431(d) of the CEA, the DF mid is exclusive of several additional factors that may influence our pricing of Swaps, namely, profit, credit reserves, hedging costs, funding and liquidity or any other costs or adjustments.

Any DF mid we provide to you is time-sensitive and only current as of the time at which it is provided to you. As a result, the DF mid you receive for a transaction may change with the passage of time even if the price at which we would agree to enter into or terminate such Swap has not changed over the same period of time. No DF mid is provided in respect of any Swap transaction with a Goldman Sachs affiliate that is not a Swap Dealer or in respect of any derivative transaction that is not regulated by the CFTC.

**DF DAILY MARK METHODOLOGY DISCLOSURE**

The DF daily mark for each uncleared Swap and uncleared Security-Based Swap that is required to be provided to you in accordance with CFTC Regulation 23.431(d)(2) and SEC Regulation 240.15Fh-3(c)(2) is prepared by discounting projected future cashflows of the Swap or Security-Based Swap, as applicable, to arrive at a current value. For each asset class, spot and forward curves, correlation and volatility levels are determined on the basis of observable market inputs when available and on the basis of estimates when observable market inputs are not available. These spot and forward curves, correlation and volatility levels are used to estimate future cashflows that are not certain (for example floating interest rates or options). In some cases, we may use probabilistic models to determine the expected value of future cashflows. These estimated cashflows, along with future cashflows that are known with certainty, are then discounted to their present value using discount factors derived from relevant market inputs.

Unless otherwise specified, the discounting rate used for all Swaps or Security Based Swaps is an overnight rate.

In our sole discretion, we may use a variety of methodologies to prepare the estimated cashflows described above for Swaps and Security-Based Swaps, including without limitation, preparing Monte Carlo simulations, utilizing Black-Scholes, or other mathematical pricing models. In our sole discretion, we may vary the inputs used in such simulations and modelling, and we are under no obligation to disclose to you the methodology used or the inputs thereto.



**TREATMENT FOR CLAIMS OF MARGIN COLLATERAL  
IN THE EVENT OF INSOLVENCY PURSUANT TO RULE 18a-4**

Any margin collateral received and held by Goldman Sachs International (“GSI”), Goldman Sachs Bank Europe SE (“GSBE”), Goldman Sachs Bank USA (“GSB”) or Goldman Sachs Financial Markets, L.P. (“GSFM”) in respect of uncleared SBS with SBS Counterparty will not be subject to a segregation requirement under SEC Regulation 240.18a-4. Accordingly, in the event of an insolvency proceeding, receivership or similar process in respect of GSI, GSBE, GSB or GSFM, absent an effective segregation of such margin collateral from the property of GSI, GSBE, GSB or GSFM, established by contract or other law, such a claim could be treated as a general creditor claim against GSI, GSBE, GSB or GSFM, or its estate.

Additional details about the segregation requirements applicable to GSI, GSBE, GSB and GSFM under other laws is set forth below:

*Non-Cleared Security-Based Swap Margin Segregation Requirements Applicable to GSI*

To the extent that a counterparty has posted initial margin to GSI with respect to an OTC derivatives contract not cleared by a central counterparty pursuant to Article 13 of Commission Delegated Regulation (EU) 2016/2251 of 4 October 2016, as it forms part of the domestic law of the United Kingdom by virtue of the European Union (Withdrawal) Act 2018 (the “EUWA”) (as amended, supplemented or replaced from time to time) (the “UK EMIR Margin Regulation”), such margin must be segregated in accordance with Article 11(3) of Regulation (EU) No 648/2012 of 4 July 2012, as it forms part of the domestic law of the United Kingdom by virtue of the EUWA (as amended, supplemented or replaced from time to time) (“UK EMIR”), and Articles 19 and 20 of the UK EMIR Margin Regulation. In addition, money transferred to GSI as margin may be subject to client money protection under the United Kingdom Financial Conduct Authority’s client asset sourcebook. However, such protection does not apply with respect to margin transferred to, or held by, GSI on a title transfer basis. Additional information regarding client money protection is available in GSI’s customer documents as made available to each counterparty from time to time.

*Non-Cleared Security-Based Swap Margin Segregation Requirements Applicable to GSBE*

To the extent that a counterparty has posted initial margin to GSBE with respect to an OTC derivatives contract not cleared by a central counterparty pursuant to Article 13 of Commission Delegated Regulation (EU) 2016/2251 of 4 October 2016 (as amended, supplemented or replaced from time to time) (the “EMIR Margin Regulation”), such margin must be segregated in accordance with Article 11(3) of Regulation (EU) No 648/2012 of 4 July 2012 (as amended, supplemented or replaced from time to time) (“EMIR”), and Articles 19 and 20 of the EMIR Margin Regulation. Since GSBE is licensed as a deposit-taking CRR credit institution in Germany, any money transferred to it as margin will not be subject to client money protection under the German Securities Trading Act (*Wertpapierhandelsgesetz*) and not be segregated pursuant to the German Securities Trading Act. If the transferred monies constituted deposits (*Einlagen*), they

would be protected by, and in accordance with, applicable deposit protection schemes. However, any such protections do not apply with respect to margin transferred to, or held by, GSBE on a title transfer basis. Additional information regarding client money protection is available in GSBE's customer documents as made available to counterparties from time to time.

*Non-Cleared Security-Based Swap Margin Segregation Requirements Applicable to GSB*

To the extent that a counterparty has posted initial margin to GSB with respect to non-cleared Security-Based Swaps pursuant to § 237.3 (12 C.F.R. § 237.3) of the margin requirements of the Board of governors of the Federal Reserve System (as amended, supplemented or replaced from time to time) (the “**FRB Margin Rules**”), such margin must be segregated in accordance with § 237.7 (12 C.F.R. § 237.7) of the FRB Margin Rules.

*Non-Cleared SBS Margin Segregation Requirements Applicable to GSFM*

No other segregation requirements apply to margin received, acquired or held by GSFM with respect to non-cleared Security-Based Swaps.