CITIGROUP INC
Form 424B2
March 08, 2019

The information in this preliminary pricing supplement is not complete and may be changed. A registration statement relating to these securities has been filed with the Securities and Exchange Commission. This preliminary pricing supplement and the accompanying prospectus supplement and prospectus are not an offer to sell these securities, nor are they soliciting an offer to buy these securities, in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED MARCH 7, 2019

	March-----, 2019
	Medium-Term Senior Notes, Series N
Citigroup Global Markets Holdings Inc.	**Pricing Supplement No. 2019-USNCH[ ]**
	Filed Pursuant to Rule 424(b)(2)
	Registration Statement Nos. 333-216372 and 333-216372-01

Buffer Securities Linked to the Bloomberg Commodity Index^{SM} Due March 25, 2021

The securities offered by this pricing supplement are unsecured debt securities issued by Citigroup Global Markets Holdings Inc. and guaranteed by Citigroup Inc. Unlike conventional debt securities, the securities do not pay interest and do not repay a fixed amount of principal at maturity. Instead, the securities offer a payment at maturity that may be greater than, equal to or less than the stated principal amount, depending on the performance of the underlying specified below from the initial underlying value to the final underlying value.
The securities offer modified exposure to the performance of the underlying, with (i) the opportunity to participate in a limited range of potential appreciation of the underlying at the upside participation rate specified below and (ii) a limited buffer against any depreciation of the underlying as described below. In exchange for these features, investors must be willing to accept a means of gaining exposure to commodities that may be adversely affected by "negative roll yields" in "contango" markets, and must be willing to forgo any appreciation of the underlying in excess of the maximum return at maturity specified below. In addition, investors in the securities must be willing to accept downside exposure to any depreciation of the underlying in excess of the buffer percentage specified below. **If the underlying depreciates by more than the buffer percentage from the initial underlying value to the final underlying value, you will lose 1% of the stated principal amount of your securities for every 1% by which that depreciation exceeds the buffer percentage.** See "Risk Factors Relating to the Securities—The securities may be adversely affected by "negative roll yields" in "contango" markets" in this pricing supplement for important information about the commodity exposure that the underlying provides.
In order to obtain the modified exposure to the underlying that the securities provide, investors must be willing to accept (i) an investment that may have limited or no liquidity and (ii) the risk of not receiving any amount due under the securities if we and Citigroup Inc. default on our obligations. **All payments on the securities are subject to the credit risk of Citigroup Global Markets Holdings Inc. and Citigroup Inc.**

KEY TERMS

Issuer:	Citigroup Global Markets Holdings Inc., a wholly owned subsidiary of Citigroup Inc.
Guarantee:	All payments due on the securities are fully and unconditionally guaranteed by Citigroup Inc.
Underlying:	The Bloomberg Commodity Index^{SM}
Stated principal amount:	$1,000 per security

Pricing date:	March 22, 2019
Issue date:	March 27, 2019
Valuation date:	March 22, 2021, subject to "Additional Terms of the Securities" below
Maturity date:	March 25, 2021
Payment at maturity:	You will receive at maturity for each security you then hold: If the final underlying value is **greater than** the initial underlying value: $1,000 + the return amount, subject to the maximum return at maturity If the final underlying value is **less than or equal to** the initial underlying value but **greater than or equal to** the final buffer value: $1,000 If the final underlying value is **less than** the final buffer value: $1,000 + [$1,000 × (the underlying return + the buffer percentage)] **If the final underlying value is less than the final buffer value, you will receive less, and possibly significantly less, than the stated principal amount of your securities at maturity.**
Initial underlying value:	, the closing value of the underlying on the pricing date
Final underlying value:	The closing value of the underlying on the valuation date
Return amount:	$1,000 × the underlying return × the upside participation rate
Upside participation rate:	200%
Underlying return:	(i) The final underlying value *minus* the initial underlying value, *divided by* (ii) the initial underlying value
Maximum return at maturity:	$230 per security (23% of the stated principal amount). The payment at maturity per security will not exceed the stated principal amount *plus* the maximum return at maturity.
Final buffer value:	, 90% of the initial underlying value
Buffer percentage:	10%
Listing:	The securities will not be listed on any securities exchange
CUSIP / ISIN:	17326Y3C8 / US17326Y3C87
Underwriter:	Citigroup Global Markets Inc. ("CGMI"), an affiliate of the issuer, acting as principal

Underwriting fee and issue price:	**Issue price[(1)]**	**Underwriting fee[(2)]**	**Proceeds to issuer**
Per security:	$1,000	—	$1,000
Total:	$	—	$

(1) Citigroup Global Markets Holdings Inc. currently expects that the estimated value of the securities on the pricing date will be at least $980 per security, which will be less than the issue price. The estimated value of the securities is based on CGMI's proprietary pricing models and our internal funding rate. It is not an indication of actual profit to CGMI or other of our affiliates, nor is it an indication of the price, if any, at which CGMI or any other person may be willing to buy the securities from you at any time after issuance. See "Valuation of the Securities" in this pricing supplement.

(2) For more information on the distribution of the securities, see "Supplemental Plan of Distribution" in this pricing supplement. CGMI and its affiliates may profit from expected hedging activity related to this offering, even if the value of the securities declines. See "Use of Proceeds and Hedging" in the accompanying prospectus.

Investing in the securities involves risks not associated with an investment in conventional debt securities. See "Risk Factors Relating to the Securities" beginning on page PS-5.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the securities or determined that this pricing supplement and the accompanying prospectus supplement and prospectus are truthful or complete. Any representation to the contrary is a criminal offense.

You should read this pricing supplement together with the accompanying prospectus supplement and prospectus, each of which can be accessed via the hyperlink below:

Prospectus Supplement and Prospectus each dated April 7, 2017

The securities are not bank deposits and are not insured or guaranteed by the Federal Deposit Insurance Corporation or any other governmental agency, nor are they obligations of, or guaranteed by, a bank.

Citigroup Global Markets Holdings Inc.

Payout Diagram

The diagram below illustrates your payment at maturity for a range of hypothetical underlying returns.

Payout Diagram

n The Securities n The Underlying

Citigroup Global Markets Holdings Inc.

Hypothetical Examples

The table below indicates what your payment at maturity and total return on the securities would be for various hypothetical underlying returns. Your actual payment at maturity and total return on the securities will depend on the actual final underlying value.

Hypothetical Underlying Return	**Hypothetical Payment at Maturity per Security**	**Hypothetical Total Return on Securities at Maturity[(1)]**
100.00%	$1,230.00	23.00%
75.00%	$1,230.00	23.00%
50.00%	$1,230.00	23.00%
25.00%	$1,230.00	23.00%
11.51%	$1,230.00	23.00%
11.50%	$1,230.00	23.00%
10.00%	$1,200.00	20.00%
5.00%	$1,100.00	10.00%
0.00%	$1,000.00	0.00%
-0.01%	$1,000.00	0.00%
-10.00%	$1,000.00	0.00%
-10.01%	$999.90	-0.01%
-25.00%	$850.00	-15.00%
-30.00%	$800.00	-20.00%
-40.00%	$700.00	-30.00%
-50.00%	$600.00	-40.00%
-75.00%	$350.00	-65.00%
-100.00%	$100.00	-90.00%

[(1)] Hypothetical total return on securities at maturity = (i) hypothetical payment at maturity per security *minus* $1,000 stated principal amount per security, *divided by* (ii) $1,000 stated principal amount per security

The examples below illustrate how to determine the payment at maturity on the securities, assuming the various hypothetical final underlying values indicated below. The examples are solely for illustrative purposes, do not show all possible outcomes and are not a prediction of what the actual payment at maturity on the securities will be. The actual payment at maturity will depend on the actual final underlying value.

The examples below are based on the following hypothetical values and do not reflect the actual initial underlying value or final buffer value. For the actual initial underlying value and final buffer value, see the cover page of this pricing supplement. We have used these hypothetical values, rather than the actual values, to simplify the calculations and aid understanding of how the securities work. However, you should understand that the actual payment at maturity on the securities will be calculated based on the actual initial underlying value and final buffer value, and not the hypothetical values indicated below.

Hypothetical initial underlying value: 100
Hypothetical final buffer value: 90 (90% of the hypothetical initial underlying value)

Example 1—Upside Scenario A. The final underlying value is 105, resulting in a 5% underlying return. In this example, the final underlying value is **greater than** the initial underlying value.

Payment at maturity per security = $1,000 + the return amount, subject to the maximum return at maturity

= $1,000 + ($1,000 × the underlying return × the upside participation rate), subject to the maximum return at maturity

= $1,000 + ($1,000 × 5% × 200%), subject to the maximum return at maturity

= $1,000 + $100, subject to the maximum return at maturity

= $1,100

In this scenario, the underlying has appreciated from the initial underlying value to the final underlying value, and your total return at maturity would equal the underlying return *multiplied by* the upside participation rate.

Example 2—Upside Scenario B. The final underlying value is 150, resulting in a 50% underlying return. In this example, the final underlying value is **greater than** the initial underlying value.

Payment at maturity per security = $1,000 + the return amount, subject to the maximum return at maturity

= $1,000 + ($1,000 × the underlying return × the upside participation rate), subject to the maximum return at maturity

= $1,000 + ($1,000 × 50% × 200%), subject to the maximum return at maturity

= $1,000 + $1,000, subject to the maximum return at maturity

= $1,230

In this scenario, the underlying has appreciated from the initial underlying value to the final underlying value, but the underlying return *multiplied by* the upside participation rate would exceed the maximum return at maturity. As a result, your total return at maturity in this scenario would be limited to the maximum return at maturity, and an investment in the securities would underperform a hypothetical alternative investment providing 1-to-1 exposure to the appreciation of the underlying without a maximum return.

Example 3—Par Scenario. The final underlying value is 95, resulting in a -5% underlying return. In this example, the final underlying value is **less than** the initial underlying value but **greater than** the final buffer value.

Payment at maturity per security = $1,000

In this scenario, the underlying has depreciated from the initial underlying value to the final underlying value, but not by more than the buffer percentage. As a result, you would be repaid the stated principal amount of your securities at maturity but would not receive any positive return on your investment.

Example 4—Downside Scenario. The final underlying value is 30, resulting in a -70% underlying return. In this example, the final underlying value is **less than** the final buffer value.

Payment at maturity per security = $1,000 + [$1,000 × (the underlying return + the buffer percentage)]

= $1,000 + [$1,000 × (-70% + 10%)]

= $1,000 + [$1,000 × -60%]

= $1,000 + -$600

= $400

In this scenario, the underlying has depreciated from the initial underlying value to the final underlying value by more than the buffer percentage. As a result, your total return at maturity would be negative and would reflect 1-to-1 exposure to the negative performance of the underlying beyond the buffer percentage.

Citigroup Global Markets Holdings Inc.

Risk Factors Relating to the Securities

An investment in the securities is significantly riskier than an investment in conventional debt securities. The securities are subject to all of the risks associated with an investment in our conventional debt securities (guaranteed by Citigroup Inc.), including the risk that we and Citigroup Inc. may default on our obligations under the securities, and are also subject to risks associated with the underlying. Accordingly, the securities are suitable only for investors who are capable of understanding the complexities and risks of the securities. You should consult your own financial, tax and legal advisors as to the risks of an investment in the securities and the suitability of the securities in light of your particular circumstances.

In addition to the risk factors below, you should carefully read the risk factors included in the accompanying prospectus supplement and in the documents incorporated by reference in the accompanying prospectus, including Citigroup Inc.'s most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q, which describe risks relating to the business of Citigroup Inc. more generally.

You may lose a significant portion of your investment. Unlike conventional debt securities, the securities do not repay a fixed amount of principal at maturity. Instead, your payment at maturity will depend on the performance of the underlying. If the underlying depreciates by more than the buffer percentage from the initial underlying value to the final underlying value, you will lose 1% of the stated principal amount of your securities for every 1% by which that depreciation exceeds the buffer percentage.

Your potential return on the securities is limited. Your potential total return on the securities at maturity is limited to the maximum return at maturity, even if the underlying appreciates by significantly more than the maximum return at maturity. If the underlying appreciates by more than the maximum return at maturity, the securities will underperform an alternative investment providing 1-to-1 exposure to the performance of the underlying. In addition, the maximum return at maturity reduces the effect of the upside participation rate for all final underlying values exceeding the final underlying value at which, by multiplying the corresponding underlying return by the upside participation rate, the maximum return at maturity is reached.

The securities do not pay interest. Unlike conventional debt securities, the securities do not pay interest or any other amounts prior to maturity. You should not invest in the securities if you seek current income during the term of the securities.

The securities may be adversely affected by "negative roll yields" in "contango" markets. The underlying tracks the value of hypothetical positions in futures contracts on physical commodities, where each position is notionally "rolled" periodically out of one futures contract as the expiration date of that futures contract approaches and into another futures contract on the same underlying commodity with a later expiration date. Unlike stocks, which typically entitle the holder to a continuing stake in a corporation, commodity futures specify a certain future date for the physical delivery of a commodity. In order to avoid physical delivery and maintain continuing exposure to commodity futures,

the underlying unwinds its hypothetical position in each futures contract shortly before its expiration date and replaces that position with a hypothetical position in another futures contract on the same underlying commodity with a later expiration date. For example, a futures contract entered into in August may specify a September expiration. As the September expiration date approaches, the futures contract expiring in September may be replaced with a futures contract on the same underlying commodity expiring in October. We refer to this process as “rolling” exposure to an expiring futures contract into another futures contract on the same underlying commodity with a later expiration date. Through this rolling process, the underlying is able to reflect continuing exposure to futures contracts on the same underlying commodities.

The “rolling” feature of the underlying creates the potential for a significant negative effect on the level of the underlying—which we refer to as a “negative roll yield”—that is independent of the performance of the spot prices of the underlying physical commodities. The “spot price” of a commodity is the price of that commodity for immediate delivery, as opposed to a futures price, which represents the price for delivery on a specified date in the future. The underlying would be expected to experience negative roll yield if commodity futures prices tend to be greater than the spot prices for the relevant commodities. A market where futures prices are generally greater than spot prices is referred to as a “contango” market. Futures prices on a commodity may be greater than spot prices for a variety of reasons, including costs of storing the commodity until the delivery date, financing costs and market expectations that future spot prices may be higher than current spot prices. As any commodity futures contract approaches expiration, its value will approach the spot price of the relevant commodity, because by expiration it will effectively represent a contract to buy or sell that commodity for immediate (or “spot”) delivery. Therefore, if the futures market for a given commodity is in contango, then the value of a futures contract on that commodity would tend to decline over time (assuming the spot price remains unchanged), because the higher futures price would fall as it converges to the lower spot price by expiration. If the futures market for a given commodity is in contango and the spot price of that commodity remains constant, the underlying would enter into a hypothetical position in a futures contract on that commodity at the higher contango futures price and then unwind that position near the lower spot price just prior to expiration of that contract, and then enter into a hypothetical position in a new futures contract on that commodity at the higher contango futures price and unwind that position near the lower spot price, and so on over the term of the securities, all the while accumulating losses from the erosion in value that results as the higher contango price declines toward the lower spot price.

Prospective investors in the securities should understand that futures on many of the commodities underlying the underlying have historically been in contango markets. Therefore, there is a significant risk that negative roll yields may adversely affect the closing value of the underlying and the return you receive on the securities. Any negative roll yield will offset any gains in the spot prices of the underlying commodities that may occur over the term of the securities,

exacerbate any decline and cause a steady erosion in value if the spot prices of the underlying commodities remain relatively constant.

Your payment at maturity depends on the closing value of the underlying on a single day. Because your payment at maturity depends on the closing value of the underlying solely on the valuation date, you are subject to the risk that the closing value of the underlying on that day may be lower, and possibly significantly lower, than on one or more other dates during the term of the securities. If you had invested directly in the underlying or in another instrument linked to the underlying that you could sell for full value at a time selected by you, or if the payment at maturity were based on an average of closing values of the underlying, you might have achieved better returns.

The securities are subject to the credit risk of Citigroup Global Markets Holdings Inc. and Citigroup Inc. If we default on our obligations under the securities and Citigroup Inc. defaults on its guarantee obligations, you may not receive anything owed to you under the securities.

The securities will not be listed on any securities exchange and you may not be able to sell them prior to maturity. The securities will not be listed on any securities exchange. Therefore, there may be little or no secondary market for the securities. CGMI currently intends to make a secondary market in relation to the securities and to provide an indicative bid price for the securities on a daily basis. Any indicative bid price for the securities provided by CGMI will be determined in CGMI's sole discretion, taking into account prevailing market conditions and other relevant factors, and will not be a representation by CGMI that the securities can be sold at that price, or at all. CGMI may suspend or terminate making a market and providing indicative bid prices without notice, at any time and for any reason. If CGMI suspends or terminates making a market, there may be no secondary market at all for the securities because it is likely that CGMI will be the only broker-dealer that is willing to buy your securities prior to maturity. Accordingly, an investor must be prepared to hold the securities until maturity.

The estimated value of the securities on the pricing date, based on CGMI's proprietary pricing models and our internal funding rate, is less than the issue price. The difference is attributable to certain costs associated with selling, structuring and hedging the securities that are included in the issue price. These costs include (i) any selling concessions or other fees paid in connection with the offering of the securities, (ii) hedging and other costs incurred by us and our affiliates in connection with the offering of the securities and (iii) the expected profit (which may be more or less than actual profit) to CGMI or other of our affiliates in connection with hedging our obligations under the securities. These costs adversely affect the economic terms of the securities because, if they were lower, the economic terms of the securities would be more favorable to you. The economic terms of the securities are also likely to be adversely affected by the use of our internal funding rate, rather than our secondary market rate, to price the securities. See "The estimated value of the securities would be lower if it were calculated based on our secondary market rate" below.

The estimated value of the securities was determined for us by our affiliate using proprietary pricing models. CGMI derived the estimated value disclosed on the cover page of this pricing supplement from its proprietary pricing models. In doing so, it may have made discretionary judgments about the inputs to its models, such as the volatility in the closing value of the underlying and interest rates. CGMI's views on these inputs may differ from your or others' views, and as an underwriter in this offering, CGMI's interests may conflict with yours. Both the models and the inputs

to the models may prove to be wrong and therefore not an accurate reflection of the value of the securities. Moreover, the estimated value of the securities set forth on the cover page of this pricing supplement may differ from the value that we or our affiliates may determine for the securities for other purposes, including for accounting purposes. You should not invest in the securities because of the estimated value of the securities. Instead, you should be willing to hold the securities to maturity irrespective of the initial estimated value.

The estimated value of the securities would be lower if it were calculated based on our secondary market rate. The estimated value of the securities included in this pricing supplement is calculated based on our internal funding rate, which is the rate at which we are willing to borrow funds through the issuance of the securities. Our internal funding rate is generally lower than our secondary market rate, which is the rate that CGMI will use in determining the value of the securities for purposes of any purchases of the securities from you in the secondary market. If the estimated value included in this pricing supplement were based on our secondary market rate, rather than our internal funding rate, it would likely be lower. We determine our internal funding rate based on factors such as the costs associated with the securities, which are generally higher than the costs associated with conventional debt securities, and our liquidity needs and preferences. Our internal funding rate is not an interest rate that is payable on the securities.

Because there is not an active market for traded instruments referencing our outstanding debt obligations, CGMI determines our secondary market rate based on the market price of traded instruments referencing the debt obligations of Citigroup Inc., our parent company and the guarantor of all payments due on the securities, but subject to adjustments that CGMI makes in its sole discretion. As a result, our secondary market rate is not a market-determined measure of our creditworthiness, but rather reflects the market's perception of our parent company's creditworthiness as adjusted for discretionary factors such as CGMI's preferences with respect to purchasing the securities prior to maturity.

The estimated value of the securities is not an indication of the price, if any, at which CGMI or any other person may be willing to buy the securities from you in the secondary market. Any such secondary market price will fluctuate over the term of the securities based on the market and other factors described in the next risk factor. Moreover, unlike the estimated value included in this pricing supplement, any value of the securities determined for purposes of a secondary market transaction will be

based on our secondary market rate, which will likely result in a lower value for the securities than if our internal funding rate were used. In addition, any secondary market price for the securities will be reduced by a bid-ask spread, which may vary depending on the aggregate stated principal amount of the securities to be purchased in the secondary market transaction, and the expected cost of unwinding related hedging transactions. As a result, it is likely that any secondary market price for the securities will be less than the issue price.

The value of the securities prior to maturity will fluctuate based on many unpredictable factors. The value of your securities prior to maturity will fluctuate based on the value and volatility of the underlying and a number of other factors, including those described below. Some of these factors are interrelated in complex ways. As a result, the effect of any one factor may be offset or magnified by the effect of one or more other factors. The paragraphs below describe what we expect to be the impact on the value of the securities of a change in a specific factor, assuming all other conditions remain constant. You should understand that the value of your securities at any time prior to maturity may be significantly less than the issue price.

§ *Closing value of the underlying*. We expect that the value of the securities at any time prior to maturity will depend substantially on the closing value of the underlying at that time. If the closing value of the underlying decreases following the pricing date, the value of your securities will also likely decline, perhaps significantly. Even at a time when the closing value of the underlying is greater than the initial underlying value, the value of your securities may nevertheless be significantly less than the stated principal amount of your securities because of expectations that the closing value will continue to fluctuate over the term of the securities, among other reasons.

§ *Volatility of the underlying*. Volatility refers to the magnitude and frequency of changes in the value of the underlying over any given period. Any increase in the expected volatility of the underlying may adversely affect the value of the securities.

§ *Interest rates*. We expect that the value of the securities will be affected by changes in U.S. interest rates. In general, an increase in U.S. interest rates is likely to adversely affect the value of the securities.

§ *Time remaining to maturity*. At any given time, a portion of the value of the securities will be attributable to time value, which is based on the amount of time then remaining to maturity. You should understand that the value of the securities may be adversely affected solely as a result of the passage of time.

§ *Creditworthiness of Citigroup Global Markets Holdings Inc. and Citigroup Inc*. The securities are subject to the credit risk of Citigroup Global Markets Holdings Inc. and Citigroup Inc. Therefore, actual or anticipated adverse changes in the creditworthiness of Citigroup Global Markets Holdings Inc. and Citigroup Inc. may adversely affect the value of the securities.

It is important for you to understand that the impact of one of the factors discussed above may offset, or magnify, some or all of any change in the value of the securities attributable to one or more of the other factors.

Immediately following issuance, any secondary market bid price provided by CGMI, and the value that will be indicated on any brokerage account statements prepared by CGMI or its affiliates, will reflect a temporary upward adjustment. The amount of this temporary upward adjustment will steadily decline to zero over the temporary adjustment period. See "Valuation of the Securities" in this pricing supplement.

If a commodity hedging disruption event occurs during the term of the securities, we may redeem the securities early for an amount that may result in a significant loss on your investment. See "Additional Terms of the Securities—Commodity Hedging Disruption Event" in this pricing supplement for information about the events that may constitute a commodity hedging disruption event. If a commodity hedging disruption event occurs, we may redeem the securities prior to the maturity date for an amount equal to the early redemption amount determined as of the early redemption notice date. The early redemption amount will be determined in a manner based upon (but not necessarily identical to) CGMI's then contemporaneous practices for determining secondary market bid prices for the securities and similar instruments, subject to the exceptions and more detailed provisions set forth under "Additional Terms of the Securities—Commodity Hedging Disruption Event" below. As discussed above, any secondary market bid price is likely to be less than the issue price and, absent favorable changes in market conditions and other relevant factors, is also likely to be less than the estimated value of the securities set forth on the cover page of this pricing supplement. Accordingly, if a commodity hedging disruption event occurs, there is a significant likelihood that the early redemption amount you receive will result in a loss on your investment in the securities. Moreover, in determining the early redemption amount, the calculation agent will take into account the relevant event that has occurred, which may have a significant adverse effect on the commodity markets generally, resulting in an early redemption amount that is significantly less than the amount you paid for your securities. You may lose up to all of your investment.

The early redemption amount may be significantly less than the amount you would have received had we not elected to redeem the securities and had you been able instead to hold them to maturity. For example, the early redemption amount may be determined during a market disruption that has a significant adverse effect on the early redemption amount. That market disruption may be resolved by the time of the originally scheduled maturity date and, had your payment on the securities been determined on the scheduled valuation date rather than on the early redemption notice date, you might have achieved a significantly better return.

The calculation agent may make discretionary determinations in connection with a commodity hedging disruption event and the early redemption amount that could adversely affect your return upon early redemption. The calculation agent will be required to exercise discretion in determining whether a commodity hedging disruption event has occurred. If the calculation agent determines that a commodity hedging disruption event has occurred and as a result we elect to redeem the securities upon the occurrence of a commodity hedging disruption event, you may incur a significant loss on your investment in the securities.

In addition, the calculation agent has broad discretion to determine the early redemption amount, including the ability to make adjustments to proprietary pricing models and inputs to those models in good faith and in a commercially reasonable manner. The fact that the calculation agent is our affiliate may cause it to have interests that are adverse to yours as a holder of the securities. Under the terms of the securities, the calculation agent has the authority to make determinations that may protect our economic interests while resulting in an adverse outcome to you on your investment in the securities.

Prices of commodity futures contracts are characterized by high and unpredictable volatility, which could lead to high and unpredictable volatility in the underlying. Market prices of the commodity futures contracts included in the underlying tend to be highly volatile and may fluctuate rapidly based on numerous factors, including the factors that affect prices of the commodities underlying the commodity futures contracts included in the underlying. See "—The market prices of the commodities underlying the futures contracts included in the underlying will affect the value of the securities" below. The prices of commodities and commodity futures contracts are subject to variables that may be less significant to the values of traditional securities, such as stocks and bonds. These variables may create additional investment risks that cause the underlying and the value of the securities to be more volatile than the values of traditional securities.

As a general matter, the risk of low liquidity or volatile pricing around the maturity date of a commodity futures contract is greater than in the case of other futures contracts because (among other factors) a number of market participants take physical delivery of the underlying commodities. Many commodities are also highly cyclical. The high volatility and cyclical nature of commodity markets may render such an investment inappropriate as the focus of an investment portfolio.

Because the underlying is composed of a basket of futures contracts, any favorable performance with respect to some of these futures contracts may be offset by unfavorable performance by other futures contracts. The underlying tracks a basket composed of futures contracts on commodities. Any favorable performance with respect to some of these futures contracts may be offset by unfavorable performance by other futures contracts.

The market prices of the commodities underlying the futures contracts included in the underlying will affect the value of the securities. Because the securities are linked to the performance of the underlying, which is composed of commodity futures contracts, we expect that generally the value of the securities will depend in part on the market price of the commodities underlying those futures contracts. The prices of the commodities upon which the futures contracts that compose the underlying are based are affected by numerous factors, including: changes in supply and demand relationships, governmental programs and policies, national and international monetary, trade, political and

economic events, wars and acts of terror, changes in interest and exchange rates, speculation and trading activities in commodities and related contracts, general weather conditions, and agricultural, trade, fiscal and exchange control policies. Many commodities are also highly cyclical. These factors, some of which are specific to the market for each such commodity, may cause the value of the different commodities upon which the futures contracts that compose the underlying are based, as well as the futures contracts themselves, to move in inconsistent directions at inconsistent rates. This, in turn, will affect the value of the securities. It is not possible to predict the aggregate effect of all or any combination of these factors.

The underlying sponsor may be required to replace a contract included in the underlying if the existing futures contract is terminated or replaced. A futures contract known as a "designated contract" has been selected as the reference contract for each underlying physical commodity included in the underlying. Data concerning these designated contracts will be used to calculate the underlying. The termination or replacement of a futures contract on an established exchange occurs infrequently; however, if one or more designated contracts were to be terminated or replaced by an exchange, a comparable futures contract would be selected by the underlying sponsor, if available, to replace each such designated contract. The termination or replacement of any designated contract may have affect the value of the underlying in a manner that is adverse to holders of the securities.

You may in the future have exposure to contracts that are not traded on regulated futures exchanges. At present, the underlying is composed exclusively of regulated futures contracts; however, the underlying may in the future include over-the-counter contracts (such as swaps and forward contracts) traded on trading facilities that are subject to lesser degrees of regulation or, in some cases, no substantive regulation. As a result, trading in such contracts, and the manner in which prices and volumes are reported by the relevant trading facilities, may not be subject to the same provisions of, and the protections afforded by, the Commodity Exchange Act, as amended, or other applicable statutes and related regulations that govern trading on regulated futures exchanges. In addition, many electronic trading facilities have only recently initiated trading and do not have significant trading histories. As a result, the trading of contracts on such facilities and the inclusion of such contracts in the underlying may expose you to certain risks not presented by most exchange-traded futures contracts, including risks related to the liquidity and price histories of the relevant contracts.

Risks associated with underlying may adversely affect the market price of the securities. Because the underlying reflects the return on exchange-traded futures contracts on physical commodities, the securities may be less diversified than other funds or investment portfolios investing in a broader range of products and, therefore, could experience greater volatility. Additionally, the

annual composition of the underlying will be calculated in reliance upon historical price, liquidity and production data that are subject to potential errors in data sources or errors that may affect the weighting of components of the underlying. Any discrepancies that require revision are not applied retroactively but will be reflected in the weighting calculations of the underlying for the following year. However, the sponsor of the underlying may not discover every discrepancy. Furthermore, the annual weightings for the underlying are determined each year in the third or fourth quarter and announced as promptly as practicable following the calculation by the sponsor of the underlying under the supervision of the Bloomberg Commodity Index Oversight Committee, which has a significant degree of discretion in exercising its supervisory duties with respect to the underlying and has no obligation to take the needs of any parties to transactions involving the underlying into consideration when reweighting or making any other changes to the underlying. Finally, subject to minimum/maximum diversification limits, the commodities underlying the exchange-traded futures contracts included in the underlying from time to time are concentrated in a limited number of sectors, particularly energy and agriculture. An investment in the securities may therefore carry risks similar to a concentrated securities investment in a limited number of industries or sectors.

Holders of the securities will not benefit from regulatory protections of the Commodity Futures Trading Commission. The securities are our direct obligations, guaranteed by Citigroup Inc. The net proceeds to be received by us from the sale of the securities will not be used to purchase or sell commodity futures or options contracts on commodity futures for the benefit of the holders of securities. An investment in the securities does not constitute an investment in commodity futures or options contracts on commodity futures, and holders of the securities will not benefit from the regulatory protections of the Commodity Futures Trading Commission (the “CFTC”) afforded to persons who trade in such contracts.

Legal and regulatory changes could adversely affect the return on and value of the securities. Futures contracts and options on futures contracts, including the commodity futures contracts comprising the underlying, are subject to extensive statutes, regulations and margin requirements. The CFTC and the exchanges on which such futures contracts trade are authorized to take extraordinary actions in the event of a market emergency, including, for example, the retroactive implementation of speculative position limits or higher margin requirements, the establishment of daily limits and the suspension of trading. Furthermore, commodity futures exchange may have regulations designed to limit the amount of fluctuations in futures contract prices. These limits could adversely affect the market prices of commodity futures.

In addition, the regulation of commodity transactions in the U.S. is subject to ongoing modification by government and judicial action. The effect on the value of the securities of any future regulatory change is impossible to predict, but could be substantial and adverse to the interests of holders of the securities. For example, the Dodd–Frank Wall Street Reform and Consumer Protection Act, which was enacted on July 21, 2010, requires the CFTC to establish limits on the size of the positions any person may hold in futures contracts on a commodity, options on such futures contracts and swaps that are economically equivalent to such contracts. In particular, the CFTC has proposed rules to establish position limits that will apply to specified agricultural, metals and energy futures contracts and futures, options and swaps that are economically equivalent to those futures contracts, including many of the futures contracts included in the underlying. The limits will apply to a person’s combined position in futures, options and swaps on the relevant commodities. The rules, if enacted in their proposed form, may reduce liquidity in the exchange-traded market for the relevant commodity futures, which may, in turn, have an adverse effect on your return on the securities. Market participants may decide, or be required, to sell their positions in the relevant commodity futures as a result of these rules. While the effects of these or other regulatory developments are difficult to predict, if broad market selling

were to occur, it would likely lead to declines, possibly significant declines, in the price of the relevant commodity futures and therefore, the value of the underlying and the value of the securities.

Changes in exchange methodology may affect the value of your securities. The value of the underlying depends on the settlement prices of commodity futures as determined by the exchanges on which the relevant commodity futures contracts trade. Such exchanges may from time to time change any rule or bylaw or take emergency action under their rules, any of which could adversely affect the settlement prices of the relevant commodity futures and, in turn, your investment in the securities.

Investing in the securities is not equivalent to investing in commodity futures. The return on the securities may not reflect the return you would realize if you actually owned the commodity futures comprising the underlying. You will not have any entitlement to commodity futures or commodities by virtue of your investment in the securities.

Distortions or disruptions of market trading in commodity futures could adversely affect the value of and return on the securities. The commodity markets are subject to temporary distortions or other disruptions due to various factors, including the lack of liquidity in the markets, the participation of speculators and government regulation and intervention. These circumstances could adversely affect the settlement prices of the commodity futures included in the underlying and, therefore, the value of the underlying and the value of and return on the securities. In addition, if a market disruption event occurs on the valuation date, then the final underlying value will not be the closing value of the underlying on the valuation date, but instead will be determined as described under "Additional Terms of the Securities" in this pricing supplement. The calculation agent's determination of the value of the underlying in this circumstance may result in an unfavorable return on the securities.

The securities do not offer direct exposure to commodity spot prices. The securities are linked to the underlying, which tracks commodity futures contracts, not physical commodities (or their spot prices). The price of a commodity futures contract reflects the expected value of a commodity upon delivery in the future, whereas the spot price of a commodity reflects the immediate delivery value of the commodity. A variety of factors can lead to a disparity between the expected future price of a commodity and the spot price at a given point in time, such as the cost of storing the commodity for the term of the futures contract, interest charges

incurred to finance the purchase of the commodity and expectations concerning supply and demand for the commodity. The price movements of a futures contract are typically correlated with the movements of the spot price of the referenced commodity, but the correlation is generally imperfect and price movements in the spot market may not be reflected in the futures market (and vice versa). Accordingly, the securities may underperform a similar investment that is linked to commodity spot prices.

The securities are linked to an excess return index and not a total return index. The securities are linked to an excess return index and not a total return index. An excess return index, such as the underlying, reflects the returns that are potentially available through an unleveraged investment in the contracts composing that index. By contrast, a "total return" index, in addition to reflecting those returns, also reflects interest that could be earned on funds committed to the trading of the underlying futures contracts.

The offering of the securities does not constitute a recommendation of the underlying by us or our affiliates. You should not take the offering of the securities as an expression of our or our affiliates' views regarding how the underlying will perform in the future or as a recommendation to invest in the underlying, including through an investment in the securities. As we are part of a global financial institution, our affiliates may have positions that conflict with an investment in the securities, including short positions with respect to the underlying or commodity futures. You should undertake an independent determination of whether an investment in the securities is suitable for you in light of your specific investment objectives and financial resources.

Our affiliates may have published research, expressed opinions or provided recommendations that are inconsistent with investing in the securities and may do so in the future, and any such research, opinions or recommendations could adversely affect the closing value of the underlying. CGMI and other of our affiliates may publish research from time to time relating to the underlying and/or commodity futures. Any research, opinions or recommendations provided by CGMI or other of our affiliates may influence the closing value of the underlying, and they may be inconsistent with purchasing or holding the securities. CGMI and other of our affiliates may have published or may publish research or other opinions that call into question the investment view implicit in an investment in the securities. Investors should make their own independent investigation of the underlying and the merits of investing in the securities.

The closing value of the underlying may be affected by our or our affiliates' hedging and other trading activities. In anticipation of the sale of the securities, we expect to hedge our obligations under the securities through CGMI or other of our affiliates, who will take positions in the commodity futures included in the underlying or in instruments linked to the underlying or those commodity futures and may adjust such positions during the term of the securities. We or our counterparties may also adjust this hedge during the term of the securities and close out or unwind this hedge on or before the valuation date, which may involve, among other things, our counterparties purchasing or selling such commodity futures or other instruments. This hedging activity on or prior to the pricing date could potentially affect the closing value of the underlying on the pricing date and, accordingly, potentially increase the initial underlying value, which may adversely affect your return on the securities. Additionally, this hedging activity during the term of the securities, including on or near the valuation date, could negatively affect the closing value of the underlying on the valuation date and, therefore, adversely affect your payment at maturity. This hedging activity may present a conflict of interest between your interests as a holder of the securities and the interests we and/or our affiliates have in executing, maintaining and adjusting hedging transactions. These hedging activities

could also affect the price, if any, at which CGMI may be willing to purchase your securities in a secondary market transaction.

CGMI and other of our affiliates may also trade the commodity futures included in the underlying and/or instruments linked to the underlying or those commodity futures on a regular basis (taking long or short positions or both), for their accounts, for other accounts under their management or to facilitate transactions on behalf of customers. As with our or our affiliates' hedging activity, this trading activity could affect the closing value of the underlying on the valuation date and, therefore, adversely affect the performance of the securities.

It is possible that these hedging or trading activities could result in substantial returns for our affiliates while the value of the securities declines.

The calculation agent, which is an affiliate of ours, will make important determinations with respect to the securities. CGMI, the calculation agent for the securities, is an affiliate of ours and will determine the value of the underlying on the valuation date and the amount owed to you at maturity. In addition, in certain circumstances CGMI may be required to exercise judgments in its capacity as calculation agent. In making these judgments, CGMI's interests as an affiliate of ours could be adverse to your interests as a holder of the securities. Such judgments could include, among other things:

determining whether a commodity hedging disruption event has occurred or whether a market disruption event has occurred on the valuation date;

if the valuation date is not a trading day or if a market disruption event occurs on the valuation date, performing the alternative calculation of the final underlying value described under "Additional Terms of the Securities—Consequences of a Market Disruption Event; Postponement of the Valuation Date";

if a commodity hedging disruption event occurs, determining the early redemption amount; or

selecting a successor underlying or performing an alternative calculation of the value of the underlying if the underlying is discontinued or materially modified.

Any of these determinations made by CGMI, in its capacity as calculation agent, may adversely affect your return on the securities.

Changes that affect the underlying may affect the value of your securities. The sponsor of the underlying may at any time make methodological changes or other changes in the manner in which it operates that could affect the value of the underlying. We are not affiliated with the underlying sponsor and, accordingly, we have no control over any changes such sponsor may make. Such changes could adversely affect the performance of the underlying and the value of and your return on the securities.

The U.S. federal tax consequences of an investment in the securities are unclear. There is no direct legal authority regarding the proper U.S. federal tax treatment of the securities, and we do not plan to request a ruling from the Internal Revenue Service (the "IRS"). Consequently, significant aspects of the tax treatment of the securities are uncertain, and the IRS or a court might not agree with the treatment of the securities as prepaid forward contracts. If the IRS were successful in asserting an alternative treatment for the securities, the tax consequences of ownership and disposition of the securities might be materially and adversely affected. In particular, if a security were treated as a debt instrument for U.S. federal income tax purposes rather than as a prepaid forward contract, (i) you would generally be required to recognize income over the term of the security and (ii) any gain recognized with respect to the security would generally be treated as ordinary income and not as capital gain. As described below under "United States Federal Tax Considerations," the U.S. Treasury Department and the IRS have requested comments on various issues regarding the U.S. federal income tax treatment of "prepaid forward contracts" and similar financial instruments and have indicated that such transactions may be the subject of future regulations or other guidance. In addition, members of Congress have proposed legislative changes to the tax treatment of derivative contracts. Any legislation, Treasury regulations or other guidance promulgated after consideration of these issues could materially and adversely affect the tax consequences of an investment in the securities, possibly with retroactive effect. You should review carefully the section of this pricing supplement entitled "United States Federal Tax Considerations." You should also consult your tax adviser regarding the U.S. federal tax consequences of an investment in the securities, as well as tax consequences arising under the laws of any state, local or non-U.S. taxing jurisdiction.

Citigroup Global Markets Holdings Inc.

Information About the Bloomberg Commodity Index℠

The Bloomberg Commodity Index℠ is currently composed of 23 exchange-traded futures contracts on physical commodities and is designed to provide a broad-based measure of the performance of commodities as an asset class. It is quoted in U.S. dollars, and reflects the return of underlying commodity futures price movements only. It reflects the returns that are potentially available through an unleveraged investment in the futures contracts on physical commodities constituting the index. For more information, see "Annex A—Description of the Bloomberg Commodity Index℠" below.

Historical Information

The closing value of the Bloomberg Commodity Index℠ on March 6, 2019 was 80.7408.

The graph below shows the closing value of the Bloomberg Commodity Index℠ for each day such value was available from January 2, 2014 to March 6, 2019. We obtained the closing values from Bloomberg L.P., without independent verification. You should not take the historical values of the Bloomberg Commodity Index℠ as an indication of future performance.

Bloomberg Commodity Index℠ – Historical Closing Values
January 2, 2014 to March 6, 2019

Citigroup Global Markets Holdings Inc.

Additional Terms of the Securities

General

The terms of the securities are set forth in the accompanying prospectus supplement and prospectus, as supplemented by this pricing supplement. The accompanying prospectus supplement and prospectus contain important disclosures that are not repeated in this pricing supplement. It is important that you read the accompanying prospectus supplement and prospectus together with this pricing supplement before deciding whether to invest in the securities.

Determining the Closing Value of the Underlying

The "closing value" of the underlying on any relevant day is the official closing level of the underlying published with respect to that day.

Consequences of a Market Disruption Event; Postponement of the Valuation Date

If the scheduled valuation date is not a scheduled trading day, the valuation date will be postponed to the earlier of the next succeeding scheduled trading day and the business day immediately preceding the maturity date. If the valuation date is not a trading day or a market disruption event occurs or is continuing on the valuation date, then the final underlying value will not be the closing value of the underlying on the valuation date, but instead will be determined by the calculation agent in accordance with the formula for and method of calculating the closing value of the underlying last in effect immediately prior to the valuation date, using:

- with respect to each unaffected underlying contract, the official settlement price of that unaffected underlying contract as of the valuation date (including any delayed publication of that official settlement price for the valuation date that occurred on or prior to the determination of the final underlying value); and

- with respect to each affected underlying contract, the official settlement price of that affected underlying contract on the first scheduled trading day immediately following the valuation date on which a market disruption event does not occur with respect to any relevant underlying contract with respect to that affected underlying contract, *provided* that if a market disruption event occurs with respect to any such relevant underlying contract on each day from and including the valuation date to and including the scheduled trading day immediately preceding the maturity date, the price of each such relevant underlying contract will be determined in good faith based on the calculation agent's

assessment of the official settlement price of that affected underlying contract on the scheduled trading day immediately preceding the maturity date.

If the maturity date is not a business day, the payment required to be made on the maturity date will be made on the next succeeding business day with the same force and effect as if made on the originally scheduled maturity date. No interest will be payable as a result of the delay in payment.

A "**scheduled trading day**" means a day, as determined by the calculation agent, on which the underlying is scheduled to be published by the underlying sponsor in accordance with the rules or methodology that governs the underlying.

A "**trading day**" means a day, as determined by the calculation agent, on which the underlying is published by the underlying sponsor in accordance with the rules or methodology that governs the underlying.

A "**relevant underlying contract**" means any futures contract included in the underlying and, with respect to any such futures contract, any futures contract (including such futures contract) included in the underlying that references the same underlying commodity as such futures contract.

The "**relevant exchange**" means, for any relevant underlying contract, the exchange or principal trading market for that relevant underlying contract.

A futures contract included in the underlying is an "**unaffected underlying contract**" if no relevant underlying contract with respect to that futures contract is affected by a market disruption event on the valuation date.

A futures contract included in the underlying is an "**affected underlying contract**" if any relevant underlying contract with respect to that futures contract is affected by a market disruption event on the valuation date.

A "**market disruption event**" means:

- any suspension of or limitation imposed on trading in any relevant underlying contract on the relevant exchange or any other event that disrupts or impairs the ability of market participants in general to effect transactions in, or obtain market values for, any relevant underlying contract on the relevant exchange, in each case which the calculation agent determines is material;

- all trading in any relevant underlying contract is suspended for the entire day;

- all trading in any relevant underlying contract is suspended (which term, for the avoidance of doubt, will not include, for purposes of this bullet point, a relevant underlying contract being bid or offered at the limit price) subsequent to the opening of

trading on that day, and trading does not recommence at least ten minutes prior to the actual closing time of the regular trading session of that relevant underlying contract on that day; or

- if the relevant exchange establishes limits on the range within which the price of any relevant underlying contract may fluctuate, the official settlement price of any relevant underlying contract is at the upper or lower limit of that range on that day,

in each case as determined by the calculation agent in its sole discretion.

Commodity Hedging Disruption Event

If, on any day during the term of the securities up to but excluding the valuation date, the calculation agent determines that a commodity hedging disruption event has occurred, the issuer will have the right, but not the obligation, to redeem the securities, in whole and not in part, by providing written notice of its election to exercise that right to the trustee (the date of such notice, the “early redemption notice date”) on a redemption date of the issuer’s choosing that is no later than the 30th business day immediately following the early redemption notice date or earlier than the fifth business day following the early redemption notice date. A commodity hedging disruption event need not be continuing on the early redemption notice date or on the redemption date. The amount due and payable on the securities upon such redemption will be equal to the early redemption amount determined as of the early redemption notice date.

A “commodity hedging disruption event” means any event or condition following which the issuer or its affiliates are unable, after using commercially reasonable efforts, to (i) acquire, establish, re-establish, substitute, maintain, unwind or dispose of any security, option, future, derivative, currency, instrument, transaction, asset or arrangement that the calculation agent deems necessary to hedge the risk of entering into and performing our obligations with respect to the securities, whether in the aggregate on a portfolio basis or incrementally on a trade by trade basis (each a “hedge position”) or (ii) realize, recover or remit the proceeds of any such hedge position, in each case including (without limitation) if those hedge positions (in whole or in part) are (or, but for the consequent disposal thereof, would otherwise be) in excess of any allowable position limit(s) in relation to any commodity traded on any exchange(s) or other trading facility (it being within the sole and absolute discretion of the calculation agent to determine which of the hedge positions are counted towards that limit).

The “early redemption amount” will be the fair value of the securities determined by the calculation agent as of the early redemption notice date in good faith and in a manner based upon (but not necessarily identical to) CGMI’s then contemporaneous practices for determining a secondary market bid price for the securities and similar instruments, taking into account the commodity hedging disruption event that has occurred. In determining the early redemption amount, the calculation agent may take into account proprietary pricing models and may make adjustments to those

models or inputs to those models in good faith and in a commercially reasonable manner. The calculation agent may also take into account other facts, whether or not unique to the issuer or its affiliates, in determining the early redemption amount so long as it is in good faith and commercially reasonable. The early redemption amount may result in a significant loss on your securities. See "Risk Factors Relating to the Securities—If a commodity hedging disruption event occurs during the term of the securities, we may redeem the securities early for an amount that may result in a significant loss on your investment" in this pricing supplement.

Under the terms of the securities, the calculation agent will be required to exercise discretion under certain circumstances, including (i) determining whether a market disruption event or a commodity hedging disruption event has occurred; (ii) if a market disruption event occurs on the valuation date, performing the alternative calculation of the final underlying value described above; (iii) if a commodity hedging disruption event occurs, determining the early redemption amount; (iv) if the underlying is discontinued, selecting a successor underlying; and (v) in the event of certain changes in the way the underlying is calculated, performing an alternative calculation of the closing value of the underlying. In exercising this discretion, the calculation agent will be required to act in good faith and in a commercially reasonable manner, but it may take into account any factors it deems relevant, including, without limitation, whether the applicable event materially interfered with the issuer's or its affiliates' ability to adjust or unwind all or a material portion of any hedge position with respect to the securities.

Discontinuance or Material Modification of the Underlying

If the underlying sponsor discontinues publication of the underlying and the underlying sponsor or another entity publishes a successor or substitute index that the calculation agent determines, in its sole discretion, to be comparable to the discontinued underlying (such index being referred to in this pricing supplement as a "successor underlying"), then the closing value of the underlying the valuation date will be determined by reference to the level of that successor underlying published with respect to that day. In such event, the calculation agent will make such adjustments, if any, to any value of the underlying that is used for purposes of the securities as it determines are appropriate in the circumstances. Upon any selection by the calculation agent of a successor underlying, the calculation agent will cause written notice thereof to be promptly furnished to the issuer and to the holders of the securities.

If the underlying sponsor discontinues publication of the underlying prior to, and that discontinuation is continuing on, the valuation date and the calculation agent determines, in its sole discretion, that no successor underlying is available at that time, or the calculation agent has previously selected a successor underlying and publication of that successor underlying is discontinued prior to, and that discontinuation is continuing on, the valuation date, then the calculation agent will determine the closing value of the underlying for the valuation date on that date. The closing value of the underlying will be computed by the calculation agent in accordance with the formula for and method of calculating the underlying or successor underlying, as applicable, last in effect prior to that discontinuation using the official settlement price(s) (or, if a market disruption event has occurred with respect to a relevant underlying contract, the calculation agent's good faith estimate of the applicable settlement price(s) that would have prevailed but for that market disruption event) at the close of the principal trading session on that date of each relevant underlying contract most recently composing the underlying or successor underlying, as applicable, as well as any futures contract required to roll any expiring futures contract in

accordance with the method of calculating the underlying or successor underlying, as applicable. Notwithstanding these alternative arrangements, discontinuation of the publication of the underlying or its successor underlying, as applicable, may adversely affect the value of the securities.

If at any time the method of calculating the underlying or a successor underlying, or the level thereof, is changed in a material respect, or if the underlying or a successor underlying is in any other way modified so that it does not, in the opinion of the calculation agent, fairly represent the level of the underlying or successor underlying, as applicable, had those changes or modifications not been made, then the calculation agent will, at the close of business in the City of New York on each relevant date, make such calculations and adjustments as, in the good faith judgment of the calculation agent, may be necessary in order to arrive at a level of an index comparable to the underlying or successor underlying, as the case may be, as if those changes or modifications had not been made, and the calculation agent will calculate the closing value of the underlying or successor underlying, as applicable, with reference to the underlying or successor underlying, as adjusted. Accordingly, if the method of calculating the underlying or a successor underlying is modified so that the value of the underlying or successor underlying is a fraction of what it would have been if there had been no such modification, then the calculation agent will adjust its calculation of the underlying or successor underlying, as applicable, in order to arrive at a value of the underlying or successor underlying, as applicable, as if there had been no modification.

Events of Default and Acceleration

In case an event of default (as described in the accompanying prospectus) with respect to the securities shall have occurred and be continuing, the amount declared due and payable upon any acceleration of the securities will be determined by the calculation agent and will equal, for each security, the amount to be received on the maturity date, calculated as though the valuation date were the date of such acceleration.

In case of default in payment at maturity of the securities, no interest will accrue on such overdue payment either before or after the maturity date.

Calculation Agent

The calculation agent for the securities will be CGMI, an affiliate of Citigroup Global Markets Holdings Inc. All determinations made by the calculation agent will be at the sole discretion of the calculation agent and will, in the absence of manifest error, be conclusive for all purposes and binding on Citigroup Global Markets Holdings Inc., Citigroup Inc. and the holders of the securities. The calculation agent is obligated to carry out its duties and functions in good faith and using its reasonable judgment.

United States Federal Tax Considerations

Prospective investors should note that the discussion under the section called "United States Federal Tax Considerations" in the accompanying prospectus supplement generally does not apply to the securities issued under this pricing supplement and is superseded by the following discussion. However, the discussion below is subject to the discussion in "United States Federal Tax Considerations—Assumption by Citigroup" in the accompanying prospectus supplement, and you should read it in conjunction with that discussion.

The following is a discussion of the material U.S. federal income and certain estate tax consequences of the ownership and disposition of the securities. It applies to you only if you purchase a security for cash in the initial offering at the "issue price," which is the first price at which a substantial amount of the securities is sold to the public, and hold it as a capital asset within the meaning of Section 1221 of the Internal Revenue Code of 1986, as amended (the "Code"). This discussion does not address all of the tax consequences that may be relevant to you in light of your particular circumstances or if you are a holder subject to special rules, such as:

- a financial institution;
- a "regulated investment company";
- a tax-exempt entity, including an "individual retirement account" or "Roth IRA";
- a dealer or trader subject to a mark-to-market method of tax accounting with respect to the securities;
- a person holding a security as part of a "straddle" or conversion transaction or one who enters into a "constructive sale" with respect to a security;
- a person subject to the alternative minimum tax;
- a U.S. Holder (as defined below) whose functional currency is not the U.S. dollar; or

· an entity classified as a partnership for U.S. federal income tax purposes.

If an entity that is classified as a partnership for U.S. federal income tax purposes holds the securities, the U.S. federal income tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership. If you are a partnership holding the securities or a partner in such a partnership, you should consult your tax adviser as to the particular U.S. federal tax consequences of holding and disposing of the securities to you.

This discussion is based on the Code, administrative pronouncements, judicial decisions and final, temporary and proposed Treasury regulations, all as of the date hereof, changes to any of which may affect the tax consequences described herein, possibly with retroactive effect. This discussion does not address the effect of any applicable state, local or non-U.S. tax laws or the potential application of the Medicare contribution tax. You should consult your tax adviser about the application of the U.S. federal income and

estate tax laws (including the possibility of alternative treatments of the securities) to your particular situation, as well as any tax consequences arising under the laws of any state, local or non-U.S. jurisdiction.

Tax Treatment of the Securities

There are no statutory, judicial or administrative authorities that address the U.S. federal income tax treatment of the securities or instruments that are similar to the securities. In the opinion of our counsel, Davis Polk & Wardwell LLP, it is more likely than not that a security will be treated as a prepaid forward contract for U.S. federal income tax purposes. By purchasing the securities, you agree (in the absence of an administrative determination or judicial ruling to the contrary) to this treatment. There is uncertainty regarding this treatment, and the IRS or a court might not agree with it. In particular, if a security were treated as a debt instrument for U.S. federal income tax purposes rather than as a prepaid forward contract, (i) you would generally be required to recognize income over the term of the security and (ii) any gain recognized with respect to the security would generally be treated as ordinary income and not as capital gain. Except where stated otherwise, the remaining discussion is based on the treatment of a security as a prepaid forward contract.

Due to the absence of statutory, judicial or administrative authorities that directly address the U.S. federal tax treatment of the securities or similar instruments, significant aspects of the treatment of an investment in the securities are uncertain. We do not plan to request a ruling from the IRS, and the IRS or a court might not agree with the treatment described below. Accordingly, you should consult your tax adviser regarding all aspects of the U.S. federal income and estate tax consequences of an investment in the securities. Unless otherwise indicated, the following discussion is based on the treatment of the securities as prepaid forward contracts.

Tax Consequences to U.S. Holders

This section applies only to U.S. Holders. You are a "U.S. Holder" if for U.S. federal income tax purposes you are a beneficial owner of a security that is:

· a citizen or individual resident of the United States;

· a corporation created or organized in or under the laws of the United States, any state thereof or the District of Columbia; or

- an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source.

Legislation enacted in 2017 modified the rules regarding the timing of income to be recognized by accrual method taxpayers. Under this legislation, if you are an accrual method taxpayer, notwithstanding the discussion below, you may be required to include income on a security no later than when the relevant item is taken into account as revenue in an applicable financial statement. You should consult your tax adviser concerning the application of these rules in your particular situation.

Tax Treatment Prior to Maturity. You should not be required to recognize income over the term of the securities prior to maturity, other than pursuant to a sale, exchange or retirement as described below.

Sale, Exchange or Retirement of the Securities. Upon a sale, exchange, or retirement (including early redemption) of a security, you should recognize gain or loss equal to the difference between the amount realized and your tax basis in the security. Your tax basis in a security should generally equal the amount you paid to acquire it. The gain or loss should be long-term capital gain or loss if at the time of the taxable disposition you have held the security for more than one year, and short-term capital gain or loss otherwise. Long-term capital gains recognized by non-corporate U.S. Holders are generally subject to taxation at reduced rates. The deductibility of capital losses is subject to limitations.

Possible Alternative Tax Treatments of an Investment in the Securities

Alternative U.S. federal income tax treatments of the securities are possible that, if applied, could materially and adversely affect the timing and/or character of income, gain or loss with respect to the securities. It is possible, for example, that the securities could be treated as debt instruments issued by us. Under this treatment, the securities would generally be subject to Treasury regulations relating to the taxation of contingent payment debt instruments. In that event, regardless of your method of tax accounting, for U.S. federal income tax purposes, you would generally be required to accrue income based on our comparable yield for similar non-contingent debt, determined as of the time of issuance of the securities, in each year that you held the securities, even though we are not required to make any payment with respect to the securities until retirement. In addition, any gain on the sale, exchange or retirement of the securities would be treated as ordinary income.

Other possible U.S. federal income tax treatments of the securities could also affect the timing and character of income or loss with respect to the securities. Moreover, the U.S. Treasury Department and the IRS have requested comments on various issues regarding the U.S. federal income tax treatment of “prepaid forward contracts” and similar financial instruments and have indicated that such transactions may be the subject of future regulations or other guidance. In addition, members of Congress have proposed legislative changes to the tax treatment of derivative contracts. Any legislation, Treasury regulations or other guidance promulgated after

consideration of these issues could materially and adversely affect the tax consequences of an investment in the securities, possibly with retroactive effect. You should consult your tax adviser regarding possible alternative tax treatments of the securities and potential changes in applicable law.

Tax Consequences to Non-U.S. Holders

This section applies only to Non-U.S. Holders. You are a "Non-U.S. Holder" if for U.S. federal income tax purposes you are a beneficial owner of a security that is:

· an individual who is classified as a nonresident alien;

· a foreign corporation; or

· a foreign trust or estate.

You are not a Non-U.S. Holder for purposes of this discussion if you are (i) an individual who is present in the United States for 183 days or more in the taxable year of disposition or (ii) a former citizen or resident of the United States and certain conditions apply. If you are or may become such a person during the period in which you hold a security, you should consult your tax adviser regarding the U.S. federal tax consequences of an investment in the securities.

Sale, Exchange or Retirement of the Securities. You generally should not be subject to U.S. federal withholding or income tax in respect of amounts paid to you, provided that income in respect of the securities is not effectively connected with your conduct of a trade or business in the United States.

If you are engaged in a U.S. trade or business, and if income from the securities is effectively connected with the conduct of that trade or business, you generally will be subject to regular U.S. federal income tax with respect to that income in the same manner as if you were a U.S. Holder, subject to the provisions of an applicable income tax treaty. In this event, if you are a corporation, you should also consider the potential application of a 30% (or lower treaty rate) branch profits tax.

Tax Consequences Under Possible Alternative Treatments. Subject to the discussion under “FATCA” below, if all or any portion of a security were recharacterized as a debt instrument, any payment made to you with respect to the security generally would not be subject to U.S. federal withholding or income tax, provided that: (i) income or gain in respect of the security is not effectively connected with your conduct of a trade or business in the United States, and (ii) you provide to the applicable withholding agent an appropriate IRS Form W-8 certifying under penalties of perjury that you are not a United States person.

Other U.S. federal income tax treatments of the securities are also possible. Moreover, as discussed above under “Tax Consequences to U.S. Holders – Possible Alternative Tax Treatments of an Investment in the Securities,” the U.S. Treasury Department and the IRS have requested comments on various issues regarding the U.S. federal income tax treatment of “prepaid forward contracts” and similar financial instruments and have indicated that such transactions may be the subject of future regulations or other guidance. In addition, members of Congress have proposed legislative changes to the tax treatment of derivative contracts. Any legislation, Treasury regulations or other guidance promulgated after consideration of these issues could materially and adversely affect the tax consequences of an investment in the securities, possibly with retroactive effect. You should consult your tax adviser regarding possible alternative tax treatments of the securities and potential changes in applicable law.

U.S. Federal Estate Tax

If you are an individual Non-U.S. Holder or an entity the property of which is potentially includible in such an individual’s gross estate 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), you should note that, absent an applicable treaty exemption, a security may be treated as U.S.-situs property subject to U.S. federal estate tax. If you are such an individual or entity, you should consult your tax adviser regarding the U.S. federal estate tax consequences of an investment in the securities.

Information Reporting and Backup Withholding

Payment of the proceeds of a sale, exchange or other disposition (including retirement) of the securities may be subject to information reporting and, if you fail to provide certain identifying information (such as an accurate taxpayer identification number if you are a U.S. Holder) or meet certain other conditions, may also be subject to backup withholding at the rate specified in the Code. If you are a Non-U.S. Holder that provides an appropriate IRS Form W-8, you will generally establish an exemption from backup withholding. Amounts withheld under the backup withholding rules are not additional taxes and may be refunded or credited against your U.S. federal income tax liability, provided the relevant information is timely furnished to the IRS.

FATCA

PS-17

Legislation commonly referred to as "FATCA" generally imposes a withholding tax of 30% on payments to certain non-U.S. entities (including financial intermediaries) with respect to certain financial instruments, unless various U.S. information reporting and due diligence requirements (that are in addition to, and potentially significantly more onerous than, the requirement to deliver an IRS Form W-8) have been satisfied. An intergovernmental agreement between the United States and the non-U.S. entity's jurisdiction may modify these requirements. This legislation applies to certain financial instruments that are treated as paying U.S.-source interest, dividends or dividend equivalents or other U.S.-source "fixed or determinable annual or periodical" income ("FDAP income"). If required under FATCA, withholding applies to payments of FDAP income. While existing Treasury regulations would also require withholding on payments of gross proceeds of the disposition (including upon retirement) of certain financial instruments treated as paying U.S.-source interest or dividends, the U.S. Treasury Department has indicated in subsequent proposed regulations its intent to eliminate this requirement. The U.S. Treasury Department has stated that taxpayers may rely on these proposed regulations pending their finalization. If the securities were recharacterized as debt instruments, the FATCA requirements would apply to the securities. If withholding applies to the securities, we will not be required to pay any additional amounts with respect to amounts withheld. If you are a Non-U.S. Holder, or a U.S. Holder holding securities through a non-U.S. intermediary, you should consult your tax adviser regarding the potential application of FATCA to the securities, including the availability of certain refunds or credits.

The preceding discussion, when read in conjunction with the section entitled "United States Federal Tax Considerations – Assumption by Citigroup" in the accompanying prospectus supplement, constitutes the full opinion of Davis Polk & Wardwell LLP regarding the material U.S. federal tax consequences of owning and disposing of the securities. You should consult your tax adviser regarding all aspects of the U.S. federal income and estate tax consequences of an investment in the securities and any tax consequences arising under the laws of any state, local or non-U.S. taxing jurisdiction.

Benefit Plan Investor Considerations

A fiduciary of a pension, profit-sharing or other employee benefit plan subject to the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), including entities such as collective investment funds, partnerships and separate accounts whose underlying assets include the assets of such plans (collectively, "ERISA Plans"), should consider the fiduciary standards of ERISA in the context of the ERISA Plan's particular circumstances before authorizing an investment in the securities. Among other factors, the fiduciary should consider whether the investment would satisfy the prudence and diversification requirements of ERISA and would be consistent with the documents and instruments governing the ERISA Plan.

Section 406 of ERISA and Section 4975 of the Internal Revenue Code of 1986, as amended, (the "Code") prohibit ERISA Plans, as well as plans (including individual retirement accounts and Keogh plans) subject to Section 4975 of the Code (together with ERISA Plans, "Plans"), from engaging in certain transactions involving the "plan assets" with persons who are "parties in interest" under ERISA or "disqualified persons" under Section 4975 of the Code (in either case, "Parties in Interest") with respect to such Plans. As a result of our business, we, and our current and future affiliates, may be Parties in Interest with respect to many Plans. Where we (or our affiliate) are a Party in Interest with

respect to a Plan (either directly or by reason of our ownership interests in our directly or indirectly owned subsidiaries), the purchase and holding of the securities by or on behalf of the Plan could be a prohibited transaction under Section 406 of ERISA and/or Section 4975 of the Code, unless exemptive relief were available under an applicable exemption (as described below).

Certain prohibited transaction class exemptions ("PTCEs") issued by the U.S. Department of Labor may provide exemptive relief for direct or indirect prohibited transactions resulting from the purchase or holding of the securities. Those class exemptions are PTCE 96-23 (for certain transactions determined by in-house asset managers), PTCE 95-60 (for certain transactions involving insurance company general accounts), PTCE 91-38 (for certain transactions involving bank collective investment funds), PTCE 90-1 (for certain transactions involving insurance company separate accounts) and PTCE 84-14 (for certain transactions determined by independent qualified asset managers). In addition, ERISA Section 408(b)(17) and Section 4975(d)(20) of the Code may provide a limited exemption for the purchase and sale of the securities and related lending transactions, *provided* that neither the issuer of the securities nor any of its affiliates have or exercise any discretionary authority or control or render any investment advice with respect to the assets of the Plan involved in the transaction and *provided further* that the Plan pays no more, and receives no less, than adequate consideration in connection with the transaction (the so-called "service provider exemption"). There can be no assurance that any of these statutory or class exemptions will be available with respect to transactions involving the securities.

Accordingly, the securities may not be purchased or held by any Plan, any entity whose underlying assets include "plan assets" by reason of any Plan's investment in the entity (a "Plan Asset Entity") or any person investing "plan assets" of any Plan, unless such purchaser or holder is eligible for the exemptive relief available under PTCE 96-23, 95-60, 91-38, 90-1 or 84-14 or the service provider exemption or there is some other basis on which the purchase and holding of the securities will not constitute a non-exempt prohibited transaction under ERISA or Section 4975 of the Code. Each purchaser or holder of the securities or any interest therein will be deemed to have represented by its purchase or holding of the securities that (a) it is not a Plan and its purchase and holding of the securities is not made on behalf of or with "plan assets" of any Plan or (b) its purchase and holding of the securities will not result in a non-exempt prohibited transaction under Section 406 of ERISA or Section 4975 of the Code.

Certain governmental plans (as defined in Section 3(32) of ERISA), church plans (as defined in Section 3(33) of ERISA) and non-U.S. plans (as described in Section 4(b)(4) of ERISA) ("Non-ERISA Arrangements") are not subject to these "prohibited transaction" rules of ERISA or Section 4975 of the Code, but may be subject to similar rules under other applicable laws or regulations ("Similar Laws").

Accordingly, each such purchaser or holder of the securities shall be required to represent (and deemed to have represented by its purchase of the securities) that such purchase and holding is not prohibited under applicable Similar Laws.

Due to the complexity of these rules, it is particularly important that fiduciaries or other persons considering purchasing the securities on behalf of or with "plan assets" of any Plan consult with their counsel regarding the relevant provisions of ERISA, the Code or any Similar Laws and the availability of exemptive relief under PTCE 96-23, 95-60, 91-38, 90-1, 84-14, the service provider exemption or some other basis on which the acquisition and holding will not constitute a non-exempt prohibited transaction under ERISA or Section 4975 of the Code or a violation of any applicable Similar Laws.

The securities are contractual financial instruments. The financial exposure provided by the securities is not a substitute or proxy for, and is not intended as a substitute or proxy for, individualized investment management or advice for the benefit of any purchaser or holder of the securities. The securities have not been designed and will not be administered in a manner intended to reflect the individualized needs and objectives of any purchaser or holder of the securities.

Each purchaser or holder of any securities acknowledges and agrees that:

(i) the purchaser or holder or its fiduciary has made and shall make all investment decisions for the purchaser or holder and the purchaser or holder has not relied and shall not rely in any way upon us or our affiliates to act as a fiduciary or adviser of the purchaser or holder with respect to (A) the design and terms of the securities, (B) the purchaser or holder's investment in the securities, or (C) the exercise of or failure to exercise any rights we have under or with respect to the securities;

(ii) we and our affiliates have acted and will act solely for our own account in connection with (A) all transactions relating to the securities and (B) all hedging transactions in connection with our obligations under the securities;

(iii) any and all assets and positions relating to hedging transactions by us or our affiliates are assets and positions of those entities and are not assets and positions held for the benefit of the purchaser or holder;

(iv) our interests are adverse to the interests of the purchaser or holder; and

(v) neither we nor any of our affiliates is a fiduciary or adviser of the purchaser or holder in connection with any such assets, positions or transactions, and any information that we or any of our affiliates may provide is not intended to be impartial investment advice.

Each purchaser and holder of the securities has exclusive responsibility for ensuring that its purchase, holding and subsequent disposition of the securities does not violate the fiduciary or prohibited transaction rules of ERISA, the Code or any applicable Similar Laws. The sale of any securities to any Plan is in no respect a representation by us or any of our affiliates or representatives that such an investment meets all relevant legal requirements with respect to investments by Plans or Non-ERISA Arrangements generally or any particular Plan or Non-ERISA Arrangement, or that such an investment is appropriate for Plans or Non-ERISA Arrangements generally or any particular Plan or Non-ERISA Arrangement.

However, individual retirement accounts, individual retirement annuities and Keogh plans, as well as employee benefit plans that permit participants to direct the investment of their accounts, will not be permitted to purchase or hold the securities if the account, plan or annuity is for the benefit of an employee of CGMI or a family member and the employee receives any compensation (such as, for example, an addition to bonus) based on the purchase of securities by the account, plan or annuity.

Supplemental Plan of Distribution

CGMI, an affiliate of Citigroup Global Markets Holdings Inc. and the underwriter of the sale of the securities, is acting as principal and will not receive any underwriting fee for any securities sold in this offering. CGMI will pay selected dealers not affiliated with CGMI custodial fees of up to $5 for each security they sell. Citigroup Global Markets Holdings Inc. will reimburse CGMI for such custodial fees.

CGMI is an affiliate of ours. Accordingly, this offering will conform with the requirements addressing conflicts of interest when distributing the securities of an affiliate set forth in Rule 5121 of the Financial Industry Regulatory Authority. Client accounts over which Citigroup Inc. or its subsidiaries have investment discretion will not be permitted to purchase the securities, either directly or indirectly, without the prior written consent of the client.

Secondary market sales of securities typically settle two business days after the date on which the parties agree to the sale. Because the issue date for the securities is more than two business days after the pricing date, investors who wish to sell the securities at any time prior to the second business day preceding the issue date will be required to specify an alternative settlement date for the secondary market sale to prevent a failed settlement. Investors should consult their own investment advisors in this regard.

See “Plan of Distribution” in each of the accompanying prospectus supplement and prospectus for additional information.

A portion of the net proceeds from the sale of the securities will be used to hedge our obligations under the securities. We expect to hedge our obligations under the securities through CGMI or other of our affiliates. CGMI or such other of our affiliates may profit from this hedging activity even if the value of the securities declines. This hedging activity could affect the closing value of the underlying

and, therefore, the value of and your return on the securities. For additional information on the ways in which our counterparties may hedge our obligations under the securities, see "Use of Proceeds and Hedging" in the accompanying prospectus.

Valuation of the Securities

CGMI calculated the estimated value of the securities set forth on the cover page of this pricing supplement based on proprietary pricing models. CGMI's proprietary pricing models generated an estimated value for the securities by estimating the value of a hypothetical package of financial instruments that would replicate the payout on the securities, which consists of a fixed-income bond (the "bond component") and one or more derivative instruments underlying the economic terms of the securities (the "derivative component"). CGMI calculated the estimated value of the bond component using a discount rate based on our internal funding rate. CGMI calculated the estimated value of the derivative component based on a proprietary derivative-pricing model, which generated a theoretical price for the instruments that constitute the derivative component based on various inputs, including the factors described under "Risk Factors Relating to the Securities —The value of the securities prior to maturity will fluctuate based on many unpredictable factors" in this pricing supplement, but not including our or Citigroup Inc.'s creditworthiness. These inputs may be market-observable or may be based on assumptions made by CGMI in its discretionary judgment.

The estimated value of the securities is a function of the terms of the securities and the inputs to CGMI's proprietary pricing models. As of the date of this preliminary pricing supplement, it is uncertain what the estimated value of the securities will be on the pricing date because it is uncertain what the values of the inputs to CGMI's proprietary pricing models will be on the pricing date.

For a period of approximately three months following issuance of the securities, the price, if any, at which CGMI would be willing to buy the securities from investors, and the value that will be indicated for the securities on any brokerage account statements prepared by CGMI or its affiliates (which value CGMI may also publish through one or more financial information vendors), will reflect a temporary upward adjustment from the price or value that would otherwise be determined. This temporary upward adjustment represents a portion of the hedging profit expected to be realized by CGMI or its affiliates over the term of the securities. The amount of this temporary upward adjustment will decline to zero on a straight-line basis over the three-month temporary adjustment period. However, CGMI is not obligated to buy the securities from investors at any time. See "Risk Factors Relating to the Securities—The securities will not be listed on any securities exchange and you may not be able to sell them prior to maturity."

Prohibition of Sales to EEA Retail Investors

The securities may not be offered, sold or otherwise made available to any retail investor in the European Economic Area. For the purposes of this provision:

(a) the expression “retail investor” means a person who is one (or more) of the following:

(i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, “MiFID II”); or

(ii) a customer within the meaning of Directive 2002/92/EC, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or

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

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

Contact

Clients may contact their local brokerage representative. Third-party distributors may contact Citi Structured Investment Sales at (212) 723-7005.

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Citigroup Global Markets Holdings Inc.

Annex A
Description of the Bloomberg Commodity Index^{SM}

This section provides only a summary of the published methodology by which the underlying is constructed and calculated. For the complete methodology, you should consult the published materials made available by the underlying sponsor. The summary below is based on those published materials, which we have not independently verified.

Overview

The Bloomberg Commodity Index^{SM} is currently composed of 23 exchange-traded futures contracts on physical commodities and is designed to provide a broad-based measure of the performance of commodities as an asset class. The table below lists the commodities that are included in the Bloomberg Commodity Index^{SM} for 2019, together with the designated futures contract (the "designated contract") that is used for each commodity in the calculation of the Bloomberg Commodity Index^{SM}, the exchange on which that designated contract trades and the target weight for that designated contract in the Bloomberg Commodity Index^{SM} as of January 2019.

Table 1. 2019 Commodities, Designated Contracts and Target Weights

Commodity Group	Commodity	Designated Contract	Exchange	2019 Target Weight
Energy	Natural Gas	Henry Hub Natural Gas	New York Mercantile Exchange ("NYMEX")	8.2601380%
	Brent Crude Oil	Brent Crude Oil	ICE Futures Europe	7.3421390%
	WTI Crude Oil	Light, Sweet Crude Oil	NYMEX	7.6578610%
	Low Sulphur Gas Oil	Gas Oil	ICE Futures Europe	2.6247780%
	Unleaded Gasoline (RBOB)	Reformulated Gasoline Blendstock for Oxygen Blending	NYMEX	2.2941050%
	Heating Oil	Ultra-Low Sulfur Diesel	NYMEX	2.1596670%
Grains	Corn	Corn		5.8921720%

			Chicago Board of Trade ("CBOT")	
	Soybeans	Soybeans	CBOT	6.0250010%
	Wheat (Chicago)	Soft Wheat	CBOT	3.1403970%
	Soybean Meal	Soybean Meal	CBOT	3.4430260%
	Soybean Oil	Soybean Oil	CBOT	3.1037850%
	Wheat (Kansas City)	Hard Red Winter Wheat	Kansas City Board of Trade	1.2937850%
Industrial Metals	Copper	Copper	Commodity Exchange, Inc. ("COMEX")	7.3185670%
	Aluminum	High Grade Primary Aluminum	London Metal Exchange ("LME")	4.4126180%
	Zinc	Special High Grade Zinc	LME	3.2068700%
	Nickel	Primary Nickel	LME	2.7093210%
Precious Metals	Gold	Gold	COMEX	12.2425030%
	Silver	Silver	COMEX	3.8878360%
Softs	Sugar	World Sugar No. 11	NYBOT	3.1480610%
	Coffee	Coffee "C"	NYBOT	2.4780560%
	Cotton	Cotton	NYBOT	1.4194190%

Commodity Group	Commodity	Designated Contract	Exchange	2019 Target Weight
Livestock	Live Cattle	Live Cattle	Chicago Mercantile Exchange ("CME")	4.0907470%
	Lean Hogs	Lean Hogs	CME	1.8491490%

The Bloomberg Commodity Index^{SM} is designed to reflect the performance of a hypothetical continuously maintained rolling position in commodity futures contracts. A commodity futures contract is an agreement between two parties for the purchase and sale of a specified quantity of a particular commodity on a specified future date, at a price fixed at the time of entry into the contract. For example, a futures contract entered into in January may specify a March delivery month, which would mean that the parties to the contract would be required to pay for and deliver the underlying commodity in March for a price agreed upon in January. Unlike stocks, which entitle the holder to a continuing stake in a corporation, futures contracts have a limited life and, upon expiration, require actual delivery of the underlying commodity. In order to reflect continuing exposure to the underlying commodity and avoid physical delivery, the Bloomberg Commodity Index^{SM} must therefore include a mechanism so that, as the delivery month of the relevant underlying futures contract nears, the exposure is "rolled" out of the current underlying futures contract and into a futures contract on the same commodity with a later delivery month. See "—Index Calculation" below for the relevant delivery month at any given time for the designated contracts underlying the Bloomberg Commodity Index^{SM} and for a description of the mechanism for periodically rolling exposure into designated contracts with later delivery months.

Bloomberg determines the commodities that will compose the Bloomberg Commodity Index^{SM} and their respective weights on an annual basis pursuant to the methodology described below under "—Index Construction." Bloomberg calculates the level of the Bloomberg Commodity Index^{SM} on each BCOM business day (as defined below) as described below under "—Index Calculation."

The Bloomberg Commodity Index^{SM} is an "excess return" index, which means that the performance of the Bloomberg Commodity Index^{SM} is calculated based solely on changes in the value of the underlying designated contracts and does not reflect the additional return that a direct investor in futures contracts could achieve on cash collateral posted in connection with its investment.

Index Construction

Bloomberg determines the commodities that will compose the Bloomberg Commodity Index^{SM} and their respective weights on an annual basis. These determinations are made by Bloomberg in the third or fourth quarter of each year (the "calculation period") and are implemented in the following January.

Selection of Eligible Commodities and Designated Futures Contracts

To make these determinations each year, Bloomberg first identifies a list of commodities that are eligible for inclusion in the Bloomberg Commodity Index^{SM} in the next year. In identifying these commodities, Bloomberg has stated that it seeks to select commodities that are sufficiently significant to the world economy to merit consideration and that are tradable through a qualifying related futures contract. For each eligible commodity, Bloomberg then identifies the designated contract that will be the reference futures contract for that commodity. Historically, Bloomberg has chosen for each commodity one designated contract that is traded in North America and denominated in U.S. dollars (with the exception of several London Metals Exchange and ICE Futures Europe contracts and with the exception of crude oil and wheat, which each have two designated contracts). It is possible that Bloomberg will in the future select more than one designated contract for additional commodities or may select other designated contracts that are traded outside of the United States or in currencies other than the U.S. dollar.

Determination of Target Weights (Commodity Index Percentages)

Determination of Interim Commodity Index Percentage Based on Liquidity and Production Data

Bloomberg determines the target weight for each commodity in the Bloomberg Commodity Index^{SM} based on the relative liquidity and production percentages for each of the eligible commodities. The "Commodity Liquidity Percentage" for each commodity is determined by taking the average of the product of the annual trading volume and the average U.S. dollar settlement price, observed monthly, of the relevant designated contract (or, in the case of copper, the LME copper contract) for the five-year period ending in the year most recently ended prior to the calculation period, and dividing the result by the sum of such products for all such contracts for all eligible commodities. The "Commodity Production Percentage" is determined for each commodity by taking the average of annual production figures for that commodity, valued at the average U.S. dollar settlement price, observed monthly, of the applicable designated contract (or, in the case of copper, the LME copper contract), for the most recent five-year period for which production figures are available for all commodities included in the Bloomberg Commodity Index^{SM} and dividing the result by the sum of such amounts for all eligible commodities. In calculating production figures, Bloomberg applies special rules to avoid double-counting eligible commodities that are derivative of other eligible commodities. The Commodity Liquidity Percentage and the Commodity Production Percentage are then combined, using 2/3 of the Commodity Liquidity Percentage and 1/3 of the Commodity Production Percentage, to establish the interim "Commodity Index Percentage" for each eligible commodity.

Adjustments to Interim Commodity Index Percentage to Determine Final Commodity Index Percentage

Citigroup Global Markets Holdings Inc.

Following that determination, any eligible commodity with an interim Commodity Index Percentage of less than 0.4% will be excluded from the Bloomberg Commodity Index℠, and each eligible commodity with an interim Commodity Index Percentage of 0.4% or greater will be included in the Bloomberg Commodity Index℠ for the next year. The interim Commodity Index Percentages of all excluded commodities are allocated equally among the designated contracts for the commodities that will be included in the Bloomberg Commodity Index℠. The resulting interim Commodity Index Percentage for each of the commodities that will be included in the Bloomberg Commodity Index℠ is then further adjusted in accordance with the following diversification rules:

- No single commodity, together with its derivatives (*e.g.*, crude oil, together with heating oil and unleaded gasoline), may constitute more than 25% of the Bloomberg Commodity Index℠.

- No single commodity (*e.g.*, natural gas or silver) may constitute more than 15% of the Bloomberg Commodity Index℠.

- No related group of commodities designated by Bloomberg as a "Commodity Group" (*e.g.*, energy, precious metals, livestock or grains) may constitute more than 33% of the Bloomberg Commodity Index℠.

- No single commodity included in the Bloomberg Commodity Index℠ may constitute less than 2% of the Bloomberg Commodity Index℠, as liquidity allows.

An adjustment is also made so that the Commodity Index Percentages for gold and silver reflect solely their Commodity Liquidity Percentages, without taking into account their Commodity Production Percentages. Finally, an adjustment is made, if necessary, to prevent the Commodity Index Percentage for any commodity from exceeding 3.5 times its Commodity Liquidity Percentage. If the interim Commodity Index Percentage for any commodity is reduced following application of the above rules, the excess is allocated among the other commodities. If the Commodity Index Percentage for any commodity is increased following application of the last bullet above, that amount is drawn from the other commodities. The Commodity Index Percentage for each commodity that results from the application of the above rules is the target weight for that commodity in the Bloomberg Commodity Index℠ for the next year.

Determination of Commodity Index Multipliers

On the fourth BCOM business day of each year, each designated contract in the Bloomberg Commodity Index℠ is given a number of units (referred to as its "Commodity Index Multiplier") such that its weight in the Bloomberg Commodity Index℠, based on the settlement price of that designated contract on its exchange on that day, represents its target weight. After that day, the Commodity Index Multiplier will remain fixed, and the actual weight of that designated contract in the Bloomberg Commodity Index℠ will fluctuate based on changes in the settlement prices of that designated contract and each other designated contract in the Bloomberg Commodity Index℠. A "BCOM business day" is a day on which the sum of the Commodity Index Percentages for the commodities in the Bloomberg

Commodity Index℠ that are open for trading is greater than 50%.

Index Calculation

Overview

Bloomberg calculates an official level for the Bloomberg Commodity Index℠ on each BCOM business day.

In general, on each BCOM business day, the official level of the Bloomberg Commodity Index℠ will be equal to the level of the Bloomberg Commodity Index℠ on the prior BCOM business day plus any percentage increase, or minus any percentage decrease, in the aggregate settlement price of the designated contracts then underlying the Bloomberg Commodity Index℠ from the prior BCOM business day to the current BCOM business day. The aggregate settlement price of the designated contracts underlying the Bloomberg Commodity Index℠ on any BCOM business day is determined based on the Commodity Index Multiplier of each designated contract (representing the number of units of that designated contract in the Bloomberg Commodity Index℠) and the official settlement price, as reported by the exchange on which it trades, in U.S. dollars for that designated contract on that BCOM business day.

Determining the Lead Future and the Next Future

At any given time, the designated contract for each commodity that will underlie the Bloomberg Commodity Index℠ will be the designated contract that is either the lead future or the next future at that time. On any day in any given month, for the Bloomberg Commodity Index℠, the "lead future" is the designated contract with the delivery month specified in the table below in the column that corresponds to that month, and the "next future" is the designated contract with the delivery month specified in the column immediately to the right of that column (or, in the case of the December column, the January column). For example, on any day in January, the lead future for Natural Gas is the designated contract specifying a delivery month of March, because March is the month specified in the row for Natural Gas under the column for January. On any day in January, the next future for Natural Gas is also the designated contract specifying a delivery month of March, because March also appears under the column for February (which is the column immediately to the right of the column for January). On any day in February, the lead future for Natural Gas will continue to be the designated contract specifying a delivery month of March, because March appears in the row for Natural Gas under the column for February. However, the next future for any day in February is the designated contract specifying a delivery month of May, because May is specified in the column immediately to the right of the column for February.

Table 2. Lead Futures for Bloomberg Commodity Index℠

Citigroup Global Markets Holdings Inc.

Commodity	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Natural Gas	Mar	Mar	May	May	Jul	Jul	Sep	Sep	Nov	Nov	Jan	Jan
WTI Crude Oil	Mar	Mar	May	May	Jul	Jul	Sep	Sep	Nov	Nov	Jan	Jan
Brent Crude Oil	Mar	May	May	Jul	Jul	Sep	Sep	Nov	Nov	Jan	Jan	Mar
Unleaded Gas	Mar	Mar	May	May	Jul	Jul	Sep	Sep	Nov	Nov	Jan	Jan
Heating Oil	Mar	Mar	May	May	Jul	Jul	Sep	Sep	Nov	Nov	Jan	Jan
Live Cattle	Feb	Apr	Apr	Jun	Jun	Aug	Aug	Oct	Oct	Dec	Dec	Feb
Lean Hogs	Feb	Apr	Apr	Jun	Jun	Jul	Aug	Oct	Oct	Dec	Dec	Feb
Wheat (Chicago)	Mar	Mar	May	May	Jul	Jul	Sep	Sep	Dec	Dec	Dec	Mar
Wheat (KC HRW)	Mar	Mar	May	May	Jul	Jul	Sep	Sep	Dec	Dec	Dec	Mar
Corn	Mar	Mar	May	May	Jul	Jul	Sep	Sep	Dec	Dec	Dec	Mar
Soybeans	Mar	Mar	May	May	Jul	Jul	Nov	Nov	Nov	Nov	Jan	Jan
Soybean Oil	Mar	Mar	May	May	Jul	Jul	Dec	Dec	Dec	Dec	Jan	Jan
Soybean Meal	Mar	Mar	May	May	Jul	Jul	Dec	Dec	Dec	Dec	Jan	Jan
Aluminum	Mar	Mar	May	May	Jul	Jul	Sep	Sep	Nov	Nov	Jan	Jan
Copper	Mar	Mar	May	May	Jul	Jul	Sep	Sep	Dec	Dec	Dec	Mar
Zinc	Mar	Mar	May	May	Jul	Jul	Sep	Sep	Nov	Nov	Jan	Jan
Nickel	Mar	Mar	May	May	Jul	Jul	Sep	Sep	Nov	Nov	Jan	Jan
Gold	Feb	Apr	Apr	Jun	Jun	Aug	Aug	Dec	Dec	Dec	Dec	Feb
Silver	Mar	Mar	May	May	Jul	Jul	Sep	Sep	Dec	Dec	Dec	Mar
Sugar	Mar	Mar	May	May	Jul	Jul	Oct	Oct	Oct	Mar	Mar	Mar
Cotton	Mar	Mar	May	May	Jul	Jul	Dec	Dec	Dec	Dec	Dec	Mar
Coffee	Mar	Mar	May	May	Jul	Jul	Sep	Sep	Dec	Dec	Dec	Mar

Rolling Process

For the first through fifth BCOM business days of each month, the level of the Bloomberg Commodity Index[SM] will reflect the percentage change in the aggregate settlement price of the lead futures for that month from the prior BCOM business day to the current BCOM business day. For the sixth through tenth BCOM business days of each month, the

Bloomberg Commodity Index℠ will gradually shift its exposure, at a rate of 20% per BCOM business day, from the lead futures for that month to the next futures for that month. For example, on the sixth BCOM business day of a month, the level of the Bloomberg Commodity Index℠ will reflect the percentage change from the prior BCOM business day in the aggregate settlement price of a basket composed 80% of the lead futures for that month and 20% of the next futures for that month. On the seventh BCOM business day of a month, the level of the Bloomberg Commodity Index℠ will reflect the percentage change from the prior BCOM business day in the aggregate settlement price of a basket composed 60% of the lead futures for that month and 40% of the next futures for that month, and so on until the tenth BCOM business day of the month, when the level of the Bloomberg Commodity Index℠ will reflect the percentage change from the prior BCOM business day in the aggregate settlement price of a basket composed 100% of the next futures for that month. The level of the Bloomberg Commodity Index℠ will continue to reflect the percentage change from the prior BCOM business day in the aggregate settlement price of the next futures for that month until the end of the month (and for the first five BCOM business days of the following month, when those next futures will have become the lead futures for the new month). If Bloomberg determines that a market disruption event has occurred with respect to any designated contract on any day when the exposure of the Bloomberg Commodity Index℠ to that designated contract would otherwise be rolled from the lead futures to the next futures, that roll will be postponed until the market disruption no longer exists.

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