

# EXCHANGE TRADED PRODUCTS (ETPs) COLLATERAL EXPLAINED

July 2023

## Index tracking with limited third-party exposure

To limit tracking error against their benchmark index, some WisdomTree's products use a swap structure to provide exposure to their benchmark. Credit exposure to the relevant swap counterparties therefore needs to be mitigated and this is done by the posting of collateral (assets) by the relevant provider.

## Who is the Issuer?

Issuer	Swap Provider(s)
WisdomTree Commodity Securities Limited (CSL)	Citigroup Global Markets Limited
	Merrill Lynch International
WisdomTree Hedged Commodity Securities Limited (HCSL)	Citigroup Global Markets Limited
	Merrill Lynch International
WisdomTree Foreign Exchange Limited (FXL)	Morgan Stanley International plc
WisdomTree Multi Asset Issuer PLC (WTMA)	BNP Paribas Arbitrage S.N.C.

## Collateralised swap structures

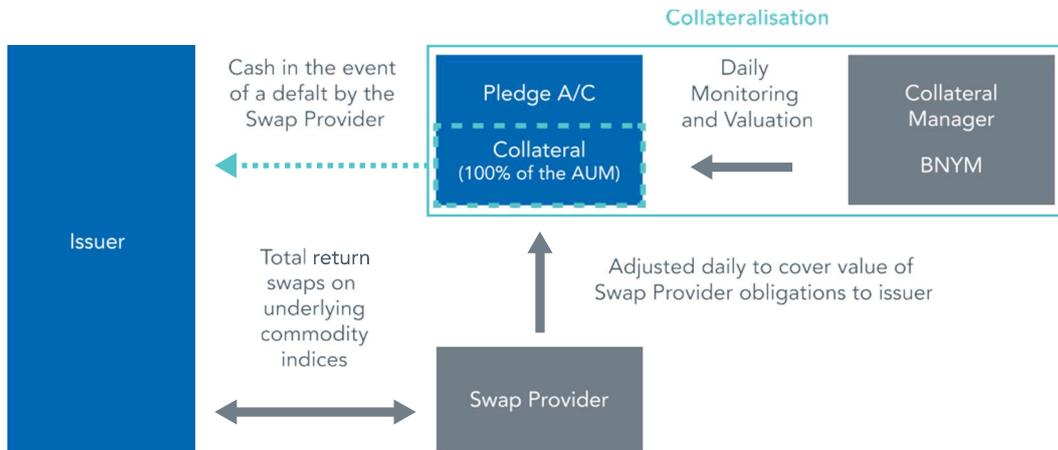
WisdomTree's Exchange Traded Products (ETPs) use two types of collateralised swap structure to gain exposure to the underlying benchmarks: funded and unfunded.

## Funded swap structure

In a fully funded swap, the money investors have paid to buy the ETPs is transferred to the swap provider (hence, fully funded). In exchange, the swap provider will provide that amount of exposure to the underlying asset and deposit collateral equal to, or greater than, that amount in segregated accounts at the Bank of New York Mellon (BNYM). This structure is used by each of CSL, WTMA and HSCL.

For CSL and HCSL the collateral remains owned by the swap provider. If the swap provider were to default ownership transfers to the relevant issuer and the collateral can then be sold in the event of a default. For WTMA the legal ownership of the collateral is transferred to the issuer under the relevant collateral administration agreement, and therefore WTMA is able to sell the collateral in the event of a default.

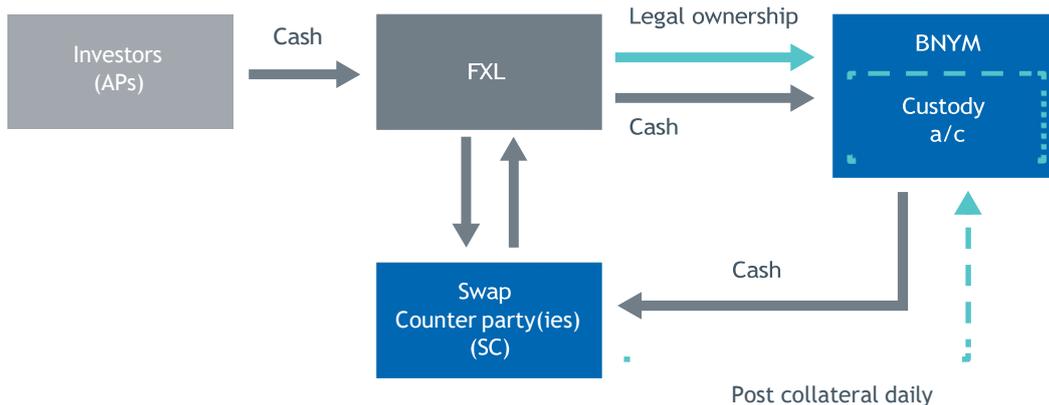
In the case of CSL and HCSL if only one swap provider defaults, the swaps with the other swap provider remain unaffected and (i) any new creations of securities will only be backed by swaps with the non-defaulting provider; and (ii) the proceeds resulting from the sale of the collateral provided by the defaulting provider may (but do not have to be) used to purchase swaps from the non-defaulting swap provider, replacing those with the defaulting provider where possible.



On each business day, if the value of the collateral held in the relevant BNYM account is less than the value of the swaps with the relevant swap provider at the end of the previous business day then that swap provider must post the extra collateral required. Any excess collateral may only be removed by a swap provider with the approval of BNYM to ensure that withdrawals are in accordance with the terms of the relevant agreements.

**Unfunded swap structure**

In an unfunded swap structure, the money investors have paid to buy the ETPs is retained by the relevant Issuer and used to purchase collateral from the swap provider under a repurchase agreement (repo). The collateral is held in account at BNYM in the name of the Issuer. Cash from investors is first paid to BNYM who only release any cash to the swap provider upon eligible collateral being posted. This structure is used by FXL and all cash inflows are 100% collateralised with a daily mark to market of swap exposure.



**COLLATERAL QUALITY AND VALUATION**

To ensure that the collateral provides adequate protection, criteria apply to these products to define (i) which assets may be posted as collateral -“eligible collateral”; and (ii) how those assets are valued.

Eligible collateral

CSL & HCSL

Type of Eligible collateral	Concentration limits and margin
<b>Money market funds</b>	< 75% of the total collateral pool in money market funds
- AAA money market funds not limited to Government or Treasury money market funds	< 20% of the net asset value or outstanding shares of any particular money market fund issuer  < 25% of the total collateral pool in any particular money market fund issuer
<b>Sovereign fixed income</b>	<b>Country concentration limit:</b>
- USA (with minimum rating of AA)	USA 100%
- G10 (excluding Japan) and other European government bonds (with minimum rating of AA)	UK, Japan, Germany, France 50%
- Supranational bonds with a L-T issuer rating not lower than AAA	Others 25%
- US Agencies 100% backed by the government (with minimum rating of AA)	
- Japanese government bonds (“JGBs”) (with minimum rating of A- or A3)	
<b>Equities</b>	<b>Concentration limits and margin</b>
Securities have to belong to specific indices. Currently, the main index names include the major benchmarks such as S&P 500 and the S&P 1500	Max 3.3% per security issuer:  <b>For each security</b> Free-float market cap: 2.5% 30-day ADV 100%  <b>Country concentration limit</b> USA 75% UK, Japan, Germany, France 25% Others 10%  <b>Margin</b> Either 85% or 75% depending on the particular index

In the case of eligible money market funds or sovereign fixed income (excluding JGBs):

Remaining months to maturity (MTM)	Valuation percentages
MTM < 12	99.5%
12 ≤ MTM ≤ 60	98%
MTM > 60	96%

In the case of JGBs:

Remaining months to maturity (MTM)	Valuation percentages
MTM < 12	94%
12 ≤ MTM ≤ 60	92%
MTM > 60	90%

**FXL**

Type of Eligible collateral	Concentration limits and margin										
<p><b>Money market funds</b></p> <ul style="list-style-type: none"> <li>- AAA Government or Treasury money market funds only</li> </ul>	<p>&lt;100% of the total collateral pool in government funds of US</p> <p>&lt; 50% of the total collateral pool in government funds of UK, Japan, Germany or France</p>										
<p><b>Sovereign fixed income</b></p> <ul style="list-style-type: none"> <li>- G10 and other European government bonds (with minimum rating of AA)</li> <li>- Supranational bonds with a L-T issuer rating not lower than AAA</li> <li>- US Agencies 100% backed by the government</li> </ul>	<p>&lt; 25% of the total collateral pool in government funds of other countries</p> <p>&lt; 25% of the total collateral in supranational bonds of one issuer</p> <p><b>Margin</b></p> <table> <tr> <td>&lt;5 years to maturity</td> <td>100%</td> </tr> <tr> <td>5-10 years to maturity</td> <td>101%</td> </tr> <tr> <td>10+ years to maturity</td> <td>102%</td> </tr> <tr> <td>US Agencies</td> <td>102%</td> </tr> <tr> <td>Unsubordinated bonds</td> <td>102%</td> </tr> </table>	<5 years to maturity	100%	5-10 years to maturity	101%	10+ years to maturity	102%	US Agencies	102%	Unsubordinated bonds	102%
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<p><b>Equities</b></p> <p>Securities have to belong to specific indices. These specified indices include the major benchmarks such as S&amp;P 500 and EURO STOXX 50, and other developed market indices such as NASDAQ and STOXX 600</p>	<p>Max 3.3% or \$10 million per security issuer:</p> <p><b>For each security</b></p> <table> <tr> <td>Free-float market cap:</td> <td>2.5%</td> </tr> <tr> <td>30-day ADV</td> <td>100%</td> </tr> </table> <p><b>Country concentration limit</b></p> <table> <tr> <td>USA</td> <td>75%</td> </tr> <tr> <td>UK, Japan, Germany, France</td> <td>25%</td> </tr> <tr> <td>Others</td> <td>10%</td> </tr> </table> <p><b>Margin</b></p> <p>Either 105% or 110% depending on the particular index</p>	Free-float market cap:	2.5%	30-day ADV	100%	USA	75%	UK, Japan, Germany, France	25%	Others	10%
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In all cases none of (i) securities issued by the swap provider or an affiliate, (ii) securities subject to corporate actions; and (iii) ABS or MBS are eligible collateral and no collateral lending or rehypothecation is allowed.

WTMA

Type of Eligible collateral	Concentration limits and margin
<p style="text-align: center;"><b>Equities</b></p> <p><b>Main Indices:</b></p> <ul style="list-style-type: none"> <li>- CAC 40 (CAC)</li> <li>- FTSE 100 (UKX)</li> <li>- German Stock Index (DAX)</li> <li>- Nikkei 225 (NKY)</li> <li>- S&amp;P 500 (SPX)</li> <li>- STOXX Europe Large 200 (LCXP)</li> </ul> <p><b>Secondary Indices:</b></p> <ul style="list-style-type: none"> <li>- AEX (AEX)</li> <li>- FTSE MIB (FTSEMIB)</li> <li>- Hang Seng (HSI)</li> <li>- Hang Seng China Enterprises (HSCEI)</li> <li>- IBEX 35 (IBEX)</li> <li>- NASDAQ 100 Stock (NDX)</li> <li>- Russell 1000 (RIY)</li> <li>- Russell 2000 (RTY)</li> <li>- S&amp;P / ASX 200 (AS51)</li> <li>- S&amp;P / TSX Composite (SPTSX)</li> <li>- STOXX Europe 600 (SXXP)</li> <li>- Swiss Market Index (SMI)</li> </ul> <p><b>ESG Exclusion:</b></p> <p>The collateral schedule excludes companies based on environmental, social and governance ("ESG") criteria. The ESG criteria seeks to exclude from the eligible collateral companies that (i) are non-compliant with certain commonly accepted international norms and standards, such as United Nations and OECD guidelines, (ii) are involved in controversial weapons such as anti-personnel mines and cluster munitions, (iii) are significantly involved in the tobacco industry or (iv) are significantly involved in thermal coal activity, such as coal mining and exploration and coal-based power generation, (v) are significantly involved in unconventional oil and gas exploration/production, such as oil sands, Arctic oil and gas or shale energy, (vi) are significantly involved in production or selling of small arms and (vii) do not meet such other ESG criteria as defined by the issuer from time to time.</p>	<p><b>Margin Percentage:</b></p> <p>106% for equities listed in Main Indices and 112% for equities listed in Secondary Indices</p> <p><b>Concentration Limits:</b></p> <p>Concentration and average daily trading volume ("ADTV") limits will be calculated based on market value of a security.</p> <ul style="list-style-type: none"> <li>a. Maximum per Issuer: the maximum of (i) EUR 10m and (ii) 3.3% of total collateral</li> <li>b. Maximum of 2.5% of free float market capitalisation of issuer</li> <li>c. Maximum of 100% of 90-day ADTV</li> <li>d. Jurisdiction concentration: a look through principle retained for Pan European indices             <ul style="list-style-type: none"> <li>i. Max 50% for US, UK, Japan, Germany, France</li> <li>ii. Max 20% for other countries</li> </ul> </li> </ul>

Bonds	
<p><b>1. Money Market Funds</b></p> <p>AAA Government or Treasury money market funds only, with no ABSs nor CDOs</p> <p><b>2. Sovereign Fixed Income:</b></p> <p>Stripped and unstrapped national bonds issued by one of the following countries</p> <ul style="list-style-type: none"> <li>a) USA, G10 and other European government bonds with minimum rating of AA</li> <li>b) Supranational bonds with a L-T issuer rating not lower than AAA</li> </ul>	<p>No concentration limits or margin requirements</p> <p><b>Country Diversification</b></p> <ul style="list-style-type: none"> <li>a) Maximum 100% for US</li> <li>b) Maximum 40% for UK, Japan, Germany, France, Holland</li> <li>c) Maximum 25% for other countries</li> </ul> <p><b>Margin Percentage: depending on maturity (other than US Agencies)</b></p> <ul style="list-style-type: none"> <li>a) Less than or equal to 5 years to maturity: 102%</li> <li>b) Greater than 5 years and less than or equal to 10 years to maturity: 102%</li> <li>c) Greater than 10 years to maturity: 105%</li> <li>d) US agencies: 105%</li> </ul>

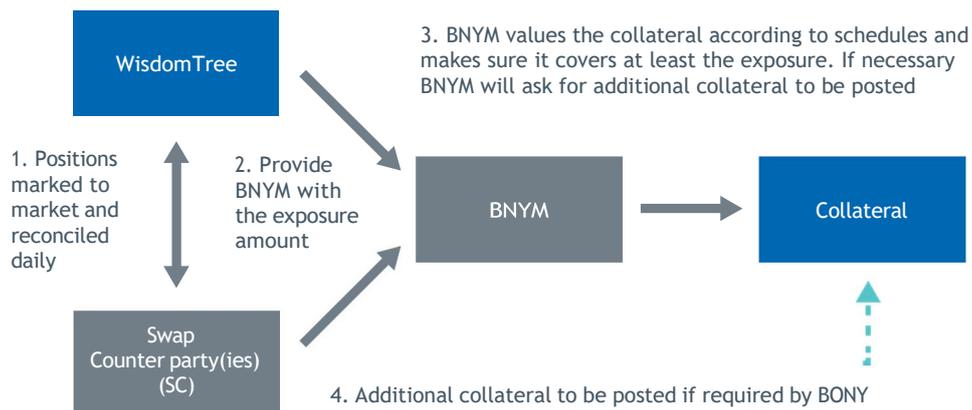
### Split Between Equity and Bonds

Eligible bonds will constitute at least the Minimum Bond Percentage by reference to the second highest long term, unsecured, unsubordinated credit rating assigned to BNP Paribas S.A. as set out below:

BNP Paribas Rating			Minimum Bond Percentage
Moody's	S&P	Fitch	
A2 (or above)	A (or above)	A (or above)	20%
A3	A-	A-	40%
Baa1	BBB+	BBB+	60%
Baa2	BBB	BBB	80%
Baa3 (or less)	BBB- (or less)	BBB- (or less)	100%

### Valuation of Collateral

On a daily basis, the issuer and the relevant swap provider will agree the exposure to be collateralised and notify this to BNYM who compare this against the value of the assets in the relevant account.



Collateral is valued by BNYM on a daily basis and subject to detailed collateral screening and valuation methodologies including:

- + Sourcing prices from at least 4 data vendors;
- + Testing and validating price quality;
- + Removing invalid prices after standard deviation tests and tolerance level tests; and
- + Valuing at zero any security if the last available price is more than 5 days old.

The aim is to hold collateral of greater value than the relevant swap exposure which is partly achieved through the use of valuation haircuts - percentage reductions to market value of the assets applied in the valuation:



**IMPORTANT FACTS RELATING TO THE COLLATERAL**

**Collateral schedule matters** - The holdings of eligible collateral posted by the swap providers will change daily. Investors should carefully consider the criteria of the quality of eligible collateral as well as the concentration and margin limits that apply.

**Credit risk** - eligible collateral is posted to reduce potential credit risk if the swap provider were to default. The posting collateral does not guarantee that no loss would occur on a credit event. The realised value of the eligible collateral following an event of default may differ from the amount owed by the swap provider, as prices fluctuate intraday (i.e. from the last point the exposure and collateral were valued). Our collateral schemes apply strict margins and concentration limits to reduce the risk of such a loss, but do not completely remove it.

On a daily basis, WisdomTree publishes a breakdown of assets that have been transferred as collateral for CSL, HCSL, WTMA and FXL.

Please visit [www.wisdomtree.com](http://www.wisdomtree.com) for more information.

**IMPORTANT INFORMATION**  
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