

Sustainability-linked Derivatives: Where

to Begin?

CONTENTS

Executive Summary	03
Introduction	06
Regulatory and Risk Considerations	09
Documentation	14
KPI Disclosure and Verification	17
Data Management	20
Conclusion	23
Appendix 1: Application to the Trade Lifecycle	24
Appendix 2: List of Contributors	25

EXECUTIVE SUMMARY

Sustainability-linked derivatives (SLDs) have a key role to play in the transition to a more sustainable economy and in enhancing the flow of private capital to meet environmental, social and governance (ESG) objectives. SLDs are highly customizable transactions that use key performance indicators (KPIs) to set sustainability targets. Since the first SLD was executed in August 2019, an increasing number of market participants have expressed an interest in transacting in these derivatives.

While SLDs have been entered into with KPIs that relate to each of the components of ESG, this paper addresses SLDs with KPIs that relate to environmental sustainability objectives. The focus of this paper is informed by the increased global focus on, and awareness of, environmental sustainability issues. With the recognition that climate change is a global issue with an impact on the world economy, alongside the continued growth of the green bond market and increasing interest in other ESG-linked debt instruments, transaction volumes for ESG-linked products will continue to increase.

This paper consolidates certain key considerations for market participants when trading SLDs. It also links those key points to various stages of the lifecycle of a transaction in the trade lifecycle roadmap on Page 5 and Appendix 1 on Page 24.

This paper:

- (i) provides an overview of issues that ISDA has previously identified as relevant to SLDs1; and
- (ii) identifies additional issues market participants may need to consider from a commercial, operational, regulatory, and legal perspective when transacting in SLDs.

SLD trading volumes are currently much smaller than those of more traditional ESG-related derivatives, (for example, derivatives that typically involve an environmental-linked commodity such as carbon credits or allowances). An increase in trading volumes and more established market practices for SLDs should assist in promoting the use of sustainable finance to help drive the transition to a greener world. As well as highlighting key issues that should be considered when entering into SLD transactions, this paper seeks to address potential questions market participants may face when investing in SLDs and, ultimately, support the development of the ESG derivatives market.

This paper aims to be a starting point for a larger and more collaborative approach to exploring documentation around SLDs, including but not limited to key issues from a commercial, operational, regulatory and legal perspective. The paper also encourages market participants to understand additional data needs in order to manage a portfolio containing SLDs. There are various post-trade functions such as regulatory reporting, pricing and cashflow management that rely on accurate maintenance of trade datasets. This paper explores some of the data points market participants may wish to consider with the addition of SLDs – this should not be considered an exhaustive list of issues, but should serve as a starting point for market participants seeking to trade SLDs.

¹ Sustainability-linked Derivatives: KPI Guidelines, ISDA, September 2021, www.isda.org/a/xvTgE/Sustainability-linked-Derivatives-KPI-Guidelines-Sept-2021.pdf; Regulatory Considerations for Sustainability-linked Derivatives, ISDA, December 2021, www.isda.org/a/58ngE/Regulatory-Considerations-for-Sustainability-linked-Derivatives.pdf

Trade Lifecycle Roadmap²

The trade lifecycle roadmap below links each section of this paper to the most relevant stage in the lifecycle of an SLD transaction.

The roadmap and corresponding labels are intended to assist with:

- (i) identifying which areas of this paper may be of most relevance to readers, depending on their role in the trade lifecycle; and
- (ii) navigating the paper more generally.

The trade lifecycle roadmap divides an SLD transaction into four stages:

- (1) Pre-trade: the processes that take place prior to the execution of an SLD transaction, including structuring, negotiation, pricing and documentation;
- (2) Trade execution: execution of an SLD transaction;
- (3) Post-trade: the processes following execution of an SLD transaction, including validation, trade capture, trade settlement, trade maintenance, collateral management, reporting and monitoring;
- (4) Trade termination: termination of an SLD transaction, either at the contract maturity or as a result of an early termination, assignment or novation.

Sections are indicated as relevant to a lifecycle stage where the topic may crystallize as an issue. For example, while it will be necessary to consider disclosure of KPIs in the pre-trade stage, disclosure will not occur before the post-trade stage, so the disclosure section is most closely linked to the post-trade stage.

A tabular representation of the trade lifecycle roadmap below can be found in Appendix 1.

² The trade lifecycle roadmap does not constitute legal advice, nor does it provide a comprehensive checklist of all factors that should be considered at each stage of the lifecycle of an SLD transaction

TRADE LIFECYCLE ROADMAP



Trade Execution

Post-trade

Trade Termination

Introduction

- · What are SLDs?
- Why use SLDs?

Regulatory and Risk Considerations

- The Regulatory Framework for SLDs
- Greenwashing
- Prudential Capital & Risk Considerations
- Additional Risk Considerations

Documentation

- Key Provisions
- Do we need Standardisation?

KPI Disclosure and Verification

 Additional Considerations when using a Third Party Verifier

Data Management

- Classification
- Event Monitoring
- Other Data Considerations
- Systemic Management

Regulatory and Risk Considerations

- The Regulatory Framework for SLDs
- Greenwashing
- Prudential Capital & Risk Considerations
- Additional Risk Considerations

Data Management

- Classification
- Other Data Considerations
- Systemic Management

Regulatory and Risk Considerations

 The Regulatory Framework for SLDs

Documentation

Key Provisions

KPI Disclosure and Verification

- Disclosure
- Verification
- Additional Considerations When Using a Third-party Verifier

Data Management

- Classification
- Event Monitoring
- Other Data Considerations
- Systemic Management

Regulatory and Risk Considerations

- Greenwashing
- Prudential Capital and Risk Considerations
- Additional Risk Considerations

Documentation

Key Provisions

KPI Disclosure and Verification

• Disclosure

Data Management

- Event Monitoring
- Other Data
 Considerations
- Systemic Management

INTRODUCTION



What Are SLDs?

SLDs are a relatively new addition to the derivatives market, with the first SLD executed in August 2019 between SBM Offshore and ING to hedge the interest rate risk of SBM's \$1 billion five-year floating rate revolving credit facility. Unlike green or sustainability-linked bonds, SLDs are not instruments that focus on the use of proceeds. Instead, they are used to incentivize ESG performance and/or to facilitate support for sustainable projects. SLDs are an evolving product and can be structured in many ways, meaning there is currently no agreed definition of an SLD or any market-standard documentation.

SLDs typically attract market participants with specific ESG pressures (referred to in this paper as a buy-side counterparty, with the financial institution with which such a market participant contracts referred to as a sell-side counterparty) and involve an ESG overlay added to a conventional derivative such as an interest rate or cross-currency swap. This ESG overlay usually takes the form of an ESG target that is applied to one or both counterparties, measured using KPIs that monitor performance against particular ESG metrics such as levels of greenhouse gas emissions or gender diversity in a workforce. KPIs are therefore a crucial element of SLDs and need to be carefully designed and drafted (see 'Documentation' section for more on KPIs).

An ESG overlay can be constructed in several different ways, including:

- an adjustment to cashflows depending on whether the agreed ESG target(s) are met, so that a
 counterparty pays more if it fails to meet the agreed ESG target (s) and pays less if it meets the
 agreed ESG target(s) for example, by way of:
 - an adjustment (upward or downward) to the spread applied to an interest rate (eg, in the case of an interest rate swap); and/or
 - a fee (or a 'greenium') to be paid by the buy-side counterparty to the sell-side counterparty,
 or a rebate to be given by the sell-side counterparty to the buy-side counterparty;
- the inclusion of an obligation for the buy-side counterparty to make a charitable payment or
 donate to a pre-agreed sustainable project if it fails to meet the agreed ESG target(s) and/or for
 the sell-side counterparty to make such a payment or donation if the buy-side counterparty
 meets the agreed ESG target(s);
- requiring the sell-side counterparty to provide funding to the buy-side counterparty for certain ESG projects if the buy-side counterparty meets the agreed ESG target(s).

This is by no means an exhaustive list – these examples could be further varied by making payments one way only, by having KPIs apply to both counterparties rather than just the buy-side counterparty or by combining different elements of each. It is also worth noting that KPIs need not be static and may evolve over the life of the transaction depending on the needs of the counterparties.



Why use SLDs?

There are multiple reasons why both buy-side and sell-side counterparties may find SLDs an attractive option. These are outlined below.

Buy-side Counterparties

- An entity's environmental impact and its ability to reduce any negative effects is currently a
 key focus for boards, senior management, investors, stakeholders, politicians and the general
 population. SLDs can allow an entity to hold itself accountable for its ESG targets by providing
 financial incentives to meet those targets. Participating in the SLD market could also give a
 strong signal to stakeholders of an entity's general commitment to ESG.
- Because SLDs can be structured as a conventional derivative with an ESG overlay, they can be a
 good first step for those looking to add ESG features to their business-as-usual transactions.
- Discussions with sell-side counterparties to define ESG targets and KPIs could allow the buyside counterparty to obtain feedback on its wider ESG strategy (for example, where a KPI is linked to the counterparty's wider sustainable strategy, that strategy may then be reviewed or interrogated as part of putting the SLD in place), which may be very useful for the buy-side counterparty as the sell-side counterparty will offer a different perspective and may suggest or challenge elements of the strategy.
- SLDs potentially offer a preferable rate compared to business-as-usual transactions, assuming ESG targets are achieved.
- Entering into one or more SLDs may incentivize a buy-side counterparty to put a KPI framework in place, which may then be used for multiple transactions or different instruments with various sell-side counterparties, resulting in efficiency across products.

Sell-side Counterparties

- Banks and other financial institutions are under increased scrutiny around their offering of ESG
 products. SLDs are a relatively straightforward way to increase ESG market profile by building
 an ESG overlay into a derivative product that may already be offered.
- Offering SLDs allows sell-side counterparties to support their clients with their ESG targets. It
 also allows them to help their clients with ESG risk management.
- SLDs can help sell-side counterparties to achieve ESG-linked commitments.
- Sell-side counterparties may start to face increased pressure to offer SLDs as their competitors do so and counterparty demand grows. Sell-side counterparties could distinguish themselves by innovating and offering a wider range of SLDs across different asset classes (interest rates, FX, commodities, etc).

Buy-side counterparties may establish a KPI framework in connection with SLDs. This can make SLDs attractive from a sell-side counterparty's perspective, because once a KPI framework is established with a buy-side counterparty, it can be used with that same buy-side counterparty for multiple transactions or different instruments, resulting in efficiency across products.

FUTURE LEADERS IN DERIVATIVES

Sustainability-linked Derivatives: Where to Begin?

While SLDs may initially require a lot of time and resources to implement, this should reduce as the product becomes more familiar to the market and the general volume of trading increases. Counterparties should always be mindful of the risk of greenwashing (see 'Regulatory and Risk Considerations' section for more detail) and should also be aware of their own internal requirements and approval processes, as well as the other commercial, operational and legal points considered in this paper.

REGULATORY AND RISK CONSIDERATIONS

The Regulatory Framework for SLDs







General Regulation

As mentioned in the introduction, SLDs are a type of derivative that has an ESG overlay, which has not been that common in derivatives trading until recently. An SLD will likely be classified as an over-the-counter (OTC) derivative, which means existing regulatory requirements that apply to OTC derivatives need to be considered when trading SLDs.

Following the global financial crisis in 2008, the Group-of-20 leading economies agreed to reforms in the OTC derivatives market to achieve central clearing, exchange or electronic trading of standardized OTC derivatives, reporting of OTC derivatives to trade repositories, and higher capital and margin requirements for non-centrally cleared OTC derivatives. These reforms have been implemented globally through local legislative and regulatory measures and will be familiar to most market participants.

Counterparties may need to consider the following requirements that would apply to SLDs as OTC derivatives, although this is not an exhaustive list:

- Mandatory trade reporting;
- Margin requirements;
- Risk mitigation requirements (including portfolio reconciliation, dispute resolution and confirmations); and
- Disclosure and pre- and post-trade transparency requirements when dealing with certain counterparties.

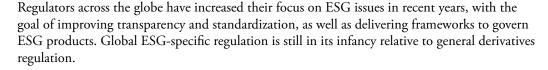
ISDA's paper, Regulatory Considerations for Sustainability-linked Derivatives³, explores how current regulatory frameworks may apply to SLDs in the EU, UK and US, covering, among other things:

- (i) whether SLDs would be considered swaps under US, EU and/or UK regulations;
- (ii) the impact SLDs may have on other derivatives cashflows that are not included in certain regulations; and
- (iii) compliance issues that may arise.



ESG-specific Regulation







³ Regulatory Considerations for Sustainability-linked Derivatives, ISDA, December 2021, www.isda.org/a/58ngE/Regulatory-Considerations-for-Sustainability-linked-Derivatives.pdf

The EU is ahead of other jurisdictions in developing ESG regulation. So far, EU regulation has mainly focused on green bonds, with the EU Taxonomy Regulation⁴ and EU Green Bond Standard⁵, and asset managers, with the Sustainable Finance Disclosure Regulation (SFDR)⁶.

SFDR applies to a range of market participants such as asset managers and credit institutions providing portfolio management or investment advice. It aims to level the playing field for market participants on transparency of sustainability risks. SFDR requires market participants to consider any adverse sustainability impacts in their investment processes and the provision of sustainability-related information with respect to financial products⁷.

SFDR is distinct from the EU Taxonomy Regulation, but they do interrelate. The EU Taxonomy Regulation establishes a framework for classification of sustainable economic activities and is one part of the European Commission's (EC) package of reforms to increase sustainable finance and prevent greenwashing. The EC is due to publish a report on the application of the EU Taxonomy Regulation in July 2022, so there may be further developments on how the regulation will support the EU's drive to increase sustainable finance.

The EU Non-Financial Reporting Directive⁸ (NFRD) was adopted in 2014 and its provisions have applied since 2018. The NFRD requires qualifying companies to disclose a non-financial statement in their annual reports, which must contain information on the way they operate and manage social and environmental challenges.

Along with the US and UK, the ESG regulatory framework in Asia Pacific (APAC) is less advanced than in other jurisdictions. Nevertheless, regulators' focus on ESG is increasing in APAC and the aggregate volume of green and sustainability-linked transactions in these regions has grown over the past few years.

Regulatory developments in APAC linked to ESG include updated listing requirements on ESG disclosure in various jurisdictions⁹, work towards a common taxonomy between the EU and China¹⁰, and prudential regulatory guidance issued in Australia relating to climate-related financial risks¹¹. South-east Asia and South Korea have also announced their intention to establish taxonomies for their respective regions¹².

Regulatory activity in these jurisdictions shows that ESG is a key focal point for regulators, and that disclosure and common standards are at the top of the regulatory agenda. While there is no specific regulation of SLDs yet, it would be prudent to bear in mind the ESG regulatory landscape for other markets (eg, capital markets) when considering SLD trading.

⁴ EU Taxonomy Regulation, eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R0852

 $^{{\}tt 5}\,{\tt EU}\,{\tt Green}\,{\tt Bond}\,{\tt Standard},\,{\tt ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/european-green-bond-standard_en}$

⁶ EU Sustainable Finance Disclosure Regulation, eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32019R2088

⁷ SFDR – a Snapshot, Changes Effective from 10 March 2021, KPMG, assets.kpmg/content/dam/kpmg/ie/pdf/2021/03/ie-sustainable-finance-disclosure-reg-sfdr.pdf

⁸ EU Non-Financial Reporting Directive, eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32014L0095

⁹ For example, Hong Kong, www.hkex.com.hk/Listing/Sustainability/ESG-Academy/Rules-and-Regulations?sc_lang=en); and Singapore, www.sgx.com/media-centre/20211215-sgx-mandates-climate-and-board-diversity-disclosures

¹⁰ Common Ground Taxonomy – Climate Change Mitigation, International Platform on Sustainable Finance, ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/211104-ipsf-common-ground-taxonomy-instruction-report-2021_en.pdf

¹¹ Prudential Practice Guide: CPG 229 Climate Change Financial Risks, Australian Prudential Regulation Authority, www.apra.gov.au/sites/default/files/2021-11/Final%20Prudential%20Practice%20Guide%20CPG%20229%20Climate%20Change%20Financial%20Risks_0.pdf

¹² ASEAN Taxonomy For Sustainable Finance, ASEAN Taxonomy Board, November 2021, asean.org/wp-content/uploads/2021/11/ASEAN-Taxonomy.pdf







One issue that results specifically from the ESG overlay of an SLD is whether any of the KPIs built into that SLD might be classified and/or regulated as a benchmark in a relevant jurisdiction. As discussed by ISDA¹³, where KPIs reference or incorporate indices, it is possible that these indices could fall within the definition of a benchmark. Market participants may therefore need to seek local legal advice regarding their specific SLD or KPI.



Risk Considerations

Greenwashing



What is Greenwashing?



Greenwashing is when misleading or unsubstantiated claims about environmental performance are made by businesses or investment funds about their products or activities¹⁴. In a speech at the European Financial Forum in Dublin in February 2020, Steven Majoor, then chair of the European Securities and Markets Authority, defined greenwashing as "a wide variety of practices that range from mis-labelling to mis-representation and mis-selling of financial products" 15.



Greenwashing has received more attention in recent years as the world moves towards a greener economy. The implementation of robust regulation across jurisdictions and standardization of ESG overlays of SLDs will help to support the credibility and integrity of ESG products as this market grows.

Certain jurisdictions have taken steps to build trust in the market for sustainable investment products, which should help to combat concerns around greenwashing that are associated with trading these products. In the UK, for example, the Financial Conduct Authority (FCA) has identified supporting ESG initiatives as one of its cross-market priorities¹⁶. In a speech at COP26 in November 2021, FCA chief executive Nikhil Rathi said greenwashing cannot be allowed to persist¹⁷.

What Can Be Done to Reduce Greenwashing Concerns?

 ESG labels play an important role in the credibility of ESG products and should not be used too liberally or only for marketing purposes. For example, while conventional derivatives hedging the interest rates or FX elements of a green bond certainly help to manage risk, such derivatives do not embed ESG elements so are arguably not themselves an ESG product. Certain jurisdictions are taking steps to address issues of mislabelling.

¹³ Regulatory Considerations for Sustainability-linked Derivatives, ISDA, December 2021, www.isda.org/a/58ngE/Regulatory-Considerations-for-Sustainability-linked-Derivatives.pdf

¹⁴ Greening Finance: A Roadmap to Sustainable Investing, HM Government, October 2021, assets.publishing.service.gov.uk/government/uploads/system/ $uploads/attachment_data/file/1031805/CCS0821102722-006_Green_Finance_Paper_2021_v6_Web_Accessible.pdf$

¹⁵ Exotic World of ESG Derivatives Triggers Warning From Regulator, October 18, 2021, www.bloomberg.com/news/articles/2021-10-18/esg-derivativesdraw-greenwashing-warning-from-markets-watchdog

¹⁶ FCA implementation of sustainability disclosure requirements (SDR) and labelling regime, Thomson Reuters Practical Law, uk.practicallaw. $thomson reuters.com/Document/I001ef065462a11ec9f24ec7b211d8087/View/FullText.html?transitionType=SearchItem\&contextData=(sc.Search)\#co_deficient for the context of the c$ snip 15371

¹⁷ A strategy for positive sustainable change, Nikhil Rathi, UK FCA, November 3, 2021, www.fca.org.uk/news/speeches/strategy-positive-sustainable-change

In the UK, for example, the FCA has proposed a system consisting of:

- (i) Standardized product classification and labelling;
- (ii) Consumer-facing disclosure providing standardized information on key sustainability characteristics and holding the provider accountable for its sustainability claims; and
- (iii) Detailed disclosure that would provide more granular information than the consumer-facing disclosure 18.

It will be important for the FCA to clearly define the scope of the labelling regime to ensure there is no ambiguity around its application in the market. Generally, product providers should ensure they are comfortable with the ESG credentials of a product before applying any labels.

- ESG targets and KPIs are crucial to the effectiveness of an SLD and should not be too weak or easy to meet¹⁹. Weak targets and KPIs could lead to claims of greenwashing. Market participants can combat this risk by ensuring KPIs are material to the relevant entity's business, consistent with their overall ESG strategy, sufficiently ambitious and not simply representing business as usual²⁰.
- KPIs should be monitored accurately and with sufficient rigor. Ensuring KPIs can be objectively monitored enhances the credibility of SLDs as a whole and will lead to increased integrity in the market. If an ESG target is linked to an ESG rating granted by a third party, market participants should be aware of the risk that different third parties will apply ESG ratings in a different way due to a lack of standardization²¹. Use of an independent verifier to check compliance with ESG targets (such as an auditor, environmental consultant or expert) could help to mitigate this risk (see 'KPI Disclosure and Verification section for more detail).







Prudential Capital and Risk Considerations

There is ongoing discussion in the market around defining ESG risks and the concept of ESG risk being treated as distinct from credit risk, market risk and operational risk²². It is clear market participants welcome engagement with regulators and policymakers to understand the potential impact and limitations of risk categorization within the current risk framework, and to improve joint understanding of ESG-related financial risks.

The Basel regulations support the move to consistent standards in today's global market and promote the implementation of risk management best practices within banks. The Basel regulations comprise three pillars: minimum capital requirements (pillar one), supervisory review (pillar two), and market discipline (pillar three). Pillar two is an integral part of the Basel regulations and is intended to ensure banks not only have adequate capital to support the risks associated with their business, but also develop and use better risk management techniques to monitor and manage these risks²³.

¹⁸ FCA implementation of sustainability disclosure requirements (SDR) and labelling regime, Thomson Reuters Practical Law, uk.practicallaw.thomsonreuters. com/Document/I001ef065462a11ec9f24ec7b211d8087/View/FullText.html?transitionType=SearchItem&contextData=(sc.Search)#co_snip_15371

¹⁹ Sustainability-linked Derivatives: KPI Guidelines, ISDA, September 2021, www.isda.org/a/xvTgE/Sustainability-linked-Derivatives-KPI-Guidelines-Sept-2021.pdf

²⁰ Ethical derivatives strive to win over sceptics, Risk.net, September 20, 2021, www.risk.net/derivatives/7878291/ethical-derivatives-strive-to-win-over-sceptic

²¹ The International Organization of Securities Commissions warns about the use of ESG rating providers, referencing a lack of clarity and alignment on definitions, a lack of transparency about methodologies and a lack of regulatory oversight, www.iosco.org/library/pubdocs/pdf/IOSCOPD690.pdf

²² AFME-ISDA response to consultation on EBA discussion paper on management and supervision of ESG risks for credit institutions and investment firms, February 3, 2021, www.isda.org/a/qeITE/AFME-ISDA-Response-to-EBA-Discussion-Paper-on-Management-and-Supervision-of-ESG-Risks-for-Credit-Institutions-and-Investment-Firms.pdf

²³ Overview of Pillar 2 supervisory review practices and approaches, Basel Committee on Banking Supervision, June 2019, www.bis.org/bcbs/publ/d465.pdf

This involves banks producing an internal capital adequacy assessment process with stress testing used to inform the outcome of this exercise. Aside from internal capital management, institutions including the European Central Bank have launched a supervisory climate risk stress test to assess the preparedness of banks to deal with financial and economic shocks stemming from climate risk. This ESG-related stress testing exercise is at an exploratory stage and currently there will be no direct capital impact on banks²⁴. In addition, the Bank of England is also carrying out similar exploratory stress testing exercises in the UK²⁵.

Pillar three is concerned primarily with risk disclosure requirements and a key goal is to improve consistency of disclosures. Disclosure is a vital tool to promote market discipline. The European Banking Authority has already published binding standards on pillar three disclosures for EU institutions on ESG risks²⁶.

The Basel Committee on Banking Supervision has also consulted on principles for effective management and supervision to address climate-related financial risks and, while such principles are welcomed by the market, it will be important that supervisors take a phased approach to introducing climate risk and ESG-related expectations into the existing regulatory capital framework²⁷.







Additional Risk Considerations

- Hedging and pricing considerations. The ability to hedge the ESG component of SLDs remains limited, although increased trading volume, standardization and transparency should help develop a broader range of hedging options. There is also an added complexity on timing that may need to be considered: the potential lag between a counterparty meeting an ESG KPI and the impact on the credit spread or valuation of the derivative. It may currently be possible to hedge ESG risk by adopting conventional market instruments, reserving upfront or using credit default swaps (as some research has proved correlation between credit and ESG performance²⁸). It is also important that counterparties remain accountable for their ESG performance and do not completely divest themselves of the risk of not doing so through hedging.
- Operational Risk. Increasing the number of SLDs traded within a portfolio will increase the need to mitigate any potential operational risks. Throughout the trade lifecyle, the majority of trade management occurs based on the data sets stored for each trade. To mitigate the risks associated with incorrect storage of data sets, the existing data model would need to be evaluated to determine if any additional characteristics need to be recorded for SLDs (this is highlighted further in the 'Data Management' section). Existing data standards such as the Common Domain Model (CDM) should be considered when assessing data needs.

²⁴ ECB Banking Supervision launches 2022 climate risk stress test, European Central Bank, January 27, 2022, https://www.bankingsupervision.europa.eu/press/pr/date/2022/html/ssm.pr220127~bd20df4d3a.en.html

²⁵ Key elements of the 2021 Biennial Exploratory Scenario: Financial risks from climate change, Bank of England, June 8, 2021, www.bankofengland. co.uk/stress-testing/2021/key-elements-2021-biennial-exploratory-scenario-financial-risks-climate-change

²⁶ EBA publishes binding standards on Pillar 3 disclosures on ESG risks, European Banking Authority, January 24, 2022, www.eba.europa.eu/eba-publishes-binding-standards-pillar-3-disclosures-esg-risks

²⁷ ISDA-GFMA response to Basel Committee consultation on principles for the effective management and supervision of climate-related financial risks, February 16, 2022, www.isda.org/a/060gE/Response-to-BCBS-on-Principles-on-Climate-related-Financial-Risk.pdf

²⁸ Rise of ethical swaps brings hedging questions, Risk.net, June 17, 2020, www.risk.net/derivatives/7562521/rise-of-ethical-swaps-brings-hedging-questions

DOCUMENTATION

Clear and accurate documentation of SLDs is key. From a documentation perspective, there are two broad categories of SLDs²⁹:

- SLDs in which the ESG-related terms, including KPIs and cashflows, are set out in the confirmation documenting the transaction (a type-one SLD); and
- SLDs in which the ESG-related terms are set out in a separate agreement or confirmation that references the transaction (a type-two SLD)³⁰.

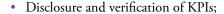
There is currently no standardized approach for documenting SLDs, and they are therefore traded on bespoke terms that will differ based on, among other things:

- Whether the SLD is a type-one SLD or type-two SLD;
- The sector to which the SLD relates (eg, commodities, utilities, manufacturing);
- The geographical location of the counterparties and local regulatory considerations (as highlighted in the 'Regulatory and Risk Considerations' section); and/or
- Whether the SLD relates to, or is a hedge for, an underlying ESG-linked debt instrument.





Careful drafting of key provisions in SLD documentation enables market participants to achieve clarity and certainty and also mitigates potential dispute risks in areas such as:



- Events affecting the operation and monitoring of KPIs; and
- The impact of meeting or failing to meet the applicable ESG targets, including any pricing implications.

ISDA's paper, *Sustainability-linked Derivatives: KPI Guidelines*³¹, provides a comprehensive overview of key considerations when drafting KPIs. These considerations are outlined below, alongside certain other provisions market participants should focus on when documenting SLDs. This is not an exhaustive list.

²⁹ Sustainability-linked Derivatives: KPI Guidelines, ISDA, September 2021, www.isda.org/a/xvTgE/Sustainability-linked-Derivatives-KPI-Guidelines-Sept-2021.pdf

³⁰ A more detailed description of these two types of SLDs, referred to as category-one and category-two SLDs, can be found in Regulatory Considerations for Sustainability-linked Derivatives, ISDA, December 2021, www.isda.org/a/58ngE/Regulatory-Considerations-for-Sustainability-linked-Derivatives.pdf

³¹ Sustainability-linked Derivatives: KPI Guidelines, ISDA, September 2021

Provision	Considerations		
Description of ESG Target(s)	ESG targets, and any KPIs by which they are measured, should be clearly described. Counterparties may wish to use percentages or specific quantities. Any formula should be clearly set out and all variables defined. If ESG targets change during the life of the SLD, trigger dates and periods over which any ESG target is measured should be clearly set out.		
KPIs	KPIs should be specific, objective, quantifiable and verifiable, and the drafting should be precise and unambiguous ³² . Counterparties should consider referring to a publicly available or other verifiable source for any measurements. If a source is not publicly available, counterparties should clearly set out how a KPI will be measured and whether a third party needs to be involved.		
Fallbacks	Counterparties should consider including an alternative method for determining whether a KPI has been met in the event the initially agreed method cannot be used (for example, because data ceases to be published).		
Disclosure and Verification	Counterparties should set out how disclosure will take place and whether a third-party verifier will be used. See 'KPI Disclosure and Verification' section for further details.		
Impact of Meeting or Failing to Meet ESG Targets	Counterparties should clearly set out any required duty or timeframe for notification of counterparty performance against KPIs, as well as any economic impact resulting from achieving or failing to achieve the ESG targets (including any applicable margin obligations).		
ESG-related Unforeseen Events	Counterparties may want to amend or include contingencies for unforeseen events that might affect KPIs or the ESG credentials of a counterparty, which might therefore have a knock-on effect on the SLI Any consequences of such events should be considered (ie, whether payments will be made after the event as though the counterparty affected had or had not complied with the relevant ESG target or targets).		
Termination Events	Counterparties should consider whether there should be any additional termination events linked to ESG, such as failure to meet ESG targets, where KPIs are not disclosed, or are misrepresented, a default by a relevant third-party (eg, a third-party verifier) or corporate events that may influence a counterparty's overall ESG strategy.		
Links to Underlying ESG Products	If the SLD relates to an underlying ESG-linked debt instrument, counterparties should assess whether provisions should be included to ensure the SLD terms are consistent with the terms agreed in the underlying debt instrument. Key terms from the underlying debt instrument may need to be imported into the SLD, including KPIs and any applicable fallbacks, and whether the debt instrument (or any security provided under that arrangement) is to be designated as a credit support document (as defined in the ISDA Master Agreement) for the purposes of the SLD.		
Categorization of the ESG Derivative	Where there is potential for debate owing to the SLD structure, parties may wish to consider clarifying the asset class to which the transaction belongs. For example, initial margin calculations are based on four identified asset classes (currency/rates, equity, credit and commodities), so counterparties may wish to agree the relevant classification upfront ³³ . Additionally, ensuring ESG terms are clear and unambiguous may assist in addressing the risk that an otherwise vanilla derivatives transaction could be re-characterized to fall outside the scope of industry-standard close-out enforceability opinions.		
Dispute Resolution	Counterparties may wish to agree bespoke dispute resolution provisions to deal with disagreements concerning disclosure or verification of the KPIs and the valuation of the SLDs (and any margin components). For example, alternative dispute resolution (ADR) may be an appropriate method to address disputes relating to SLDs. ADR includes a number of dispute resolution methods, ranging from arbitration and mediation to expert determination and other methods.		



Do We Need Standardization?

As with most derivatives, there are clear benefits to standardizing documentation for the ESG overlay of SLDs. Having a common starting point would help to harmonize the SLD market and should lower the barriers to entry for new market participants. Standardization would also help to combat some of the regulatory and risk issues associated with trading SLDs, which are described in the 'Regulatory and Risk Considerations' section. However, for standardization to be feasible, there needs to be a sufficient degree of commonality between SLDs in the market. As noted above, SLDs are currently traded on bespoke terms, which may make standardization difficult.

³² This is further discussed in Sustainability-linked Derivatives: KPI Guidelines, ISDA

³³ ISDA Standard Initial Margin Model for Non-Cleared Derivatives, www.isda.org/a/cgDDE/simm-for-non-cleared-20131210.pdf

FUTURE LEADERS IN DERIVATIVES

Sustainability-linked Derivatives: Where to Begin?

The above table includes some suggestions of common building blocks for SLD documentation. Coupled with ISDA's other efforts in this area, a growing degree of commonality in the SLD market can be expected as it grows in size and sophistication. Standardization could take the form of guidance, new ESG-related definitions covering some or all of the key provisions described above, or sustainability-linked template confirmations.

³⁴ For example, ISDA's recent publications, including Sustainability-linked Derivatives: KPI Guidelines

KPI DISCLOSURE AND VERIFICATION

Sufficient disclosure and verification of KPIs is fundamental to the efficacy of SLDs: two of the five overarching principles suggested by ISDA are that KPIs must be verifiable and transparent³⁵.

Disclosure is the process of providing information relating to the performance of a relevant entity against a KPI. Verification is the process of using that disclosed information to check whether that entity has satisfied the relevant ESG target.



Disclosure

Some of the key points to focus on when agreeing disclosure requirements are:

Process

Counterparties should include in their documents a clearly defined process for information distribution (eg, publication portals), as well as details of how such information will be stored upon receipt.

• Frequency of Disclosure

Deadlines and timeframes need to be clearly defined – counterparties will need sufficient time after receiving disclosure to complete verification ahead of any relevant payment adjustment or similar process. Staged disclosure obligations throughout the term of a transaction could assist with this. Concerns over the frequency of disclosure are particularly acute for short-dated SLDs that mature prior to the first disclosure date (ie, where a KPI is observed over the term of the trade, but performance is not reported until after maturity) and in respect of which a post-maturity payment may arise.

• Level and Measurability of Disclosure

Documentation should clearly set out the level of disclosure needed to align with the requirements of the trade for each party. The level of disclosure should be appropriate for the counterparties' agreed ESG targets and should represent effective and, to the extent possible, objective evidence. Disclosure should also be measurable and based on external information where possible.

Practicalities

Attention should be paid to the practicalities of disclosing in the face of:

- (i) confidentiality obligations to which the information may be subject;
- (ii) any legal or regulatory obligations that may be created (eg, by making the receiving party an 'insider');
- (iii) the need for disclosure obligations to be examined or interpreted by third parties; and
- (iv) whether the disclosing party should provide an explanation of how the information has been compiled, including any assumptions or qualifications and an overview of the relevant data inputs (in each case as relevant to the KPIs for the transaction).

³⁵ Sustainability-linked Derivatives: KPI Guidelines, ISDA, September 2021, www.isda.org/a/xvTgE/Sustainability-linked-Derivatives-KPI-Guidelines-Sept-2021.pdf

Counterparties may also want to provide a form of notification or certificate of disclosure (eg, by appending a pro forma certificate to the SLD documentation), as well as a clear legal remedy in the event such disclosure turns out to be incorrect at a later date.

• Reliance

Counterparties could request appropriate representations, warranties and undertakings as to the accuracy and completeness of disclosure. Clear disclaimer and warning statements may be needed where the information has been extrapolated or obtained from a third-party source (equivalent to third-party information statements in public offering documentation).

• Correction, Control and Failure to Disclose

Defects in disclosure relating to KPIs may only be identified during the verification process. It may therefore be helpful to include a right for the relevant counterparty to obtain supplementary or corrected disclosure. Where a third-party verifier has not already been appointed, this may include having the ability to appoint such a third-party verifier, or the right to create a committee of representatives from both counterparties to challenge any disclosed information. As set out in the documentation section, there should be clear consequences for any failure to disclose, which may be economic (eg, by stating that any financial benefit accruing to the party that has failed to disclose will cease to apply), or in certain circumstances, result in a termination right.



Verification

Some of the key points to focus on when agreeing verification requirements are:

• Practicalities

Certain KPIs may require on-site or similar verification in respect of which practical obstacles may arise. Contractual provisions may need to include fallbacks where such verification is not possible, or accommodate a lack of available reference points, sources and information required for verification.

• Standardized Outputs

The output of any verification process should be pre-agreed and standardized as far as possible. There are a number of benefits to such standardization, including operational practicality and efficiency in back-end processing and management of lifecycle events. As individual institutions standardize their own products, it is anticipated market practice and conventions will also lead to more general standardization, resulting in greater ease of assessing the efficacy of products offered by different parties and also offering the ability for interoperability between different counterparties (for example, allowing such products to be used on a 'syndicated' basis in scenarios where a hedge coordinator novates portions of the transaction to other parties after initial execution, or more generally when an SLD is novated in whole or in part).

• Verifying entity

Counterparties should consider whether they require a third-party verifier or if they can verify any disclosure themselves. Counterparties may wish to appoint a third-party verifier to minimize potential disputes and reputational risks associated with making such determinations themselves, and to avoid inadvertently taking on any liability or duty in relation to verification. Potential conflicts of interest of any third-party verifier may need to be disclosed in risk warning or disclaimer statements. Certain KPIs may only be verifiable with the involvement of governments or government agencies, so the ability of a verifying entity to interact with such entities should be considered.



Additional Considerations When Using a Third-party Verifier

Where a third party is appointed as verifier, counterparties may find they need a good understanding of the applicable ratings methodologies and regulatory oversight of the third party. The International Organization of Securities Commissions (IOSCO) recently published a consultation report reviewing third-party ESG ratings and data product providers in the context of all ESG-linked financial transactions³⁶. While IOSCO acknowledged the role played by these third-party verifiers, it observed a lack of transparency with the methodologies employed and a lack of regulatory oversight.

Limitations of third-party verifiers may include:

- (i) Reliance on inaccurate and inconsistent data;
- (ii) Use of inexperienced research teams; and
- (iii) Lack of transparency around their ESG rating methodology.

There is not currently a market standard basis for selecting a third-party verifier, so market participants should conduct their own due diligence before using any third-party verifier. They should be comfortable that they have a sufficient understanding or sufficient transparency in relation to third-party verifiers so they can maintain appropriate levels of oversight.

Market participants may also want to consider and agree on how events affecting a third-party verifier or its services may impact the operation of the SLD (eg, where the third party verifier defaults or is subject to insolvency, or where its methodology changes) and will also need to consider and agree a mechanism for the payment of the fees of the third-party verifier and should consider the economic impact this will have on the trade terms.

³⁶ Environmental, Social and Governance (ESG) Ratings and Data Products Providers: Final Report, IOSCO, November 2021, www.iosco.org/library/pubdocs/pdf/IOSCOPD690.pdf

DATA MANAGEMENT

Collection, storage, and dissemination of data plays an important role in the management of portfolios containing derivatives. The addition of SLDs to a portfolio will require amendments to data management processes to mitigate operational risks. Various potential risks are highlighted in this section. Market participants are likely to be familiar with the component parts of an SLD transaction and so may already include them in current data models. However, the KPI element of SLDs adds complexity to the data management process.

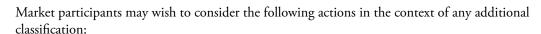
At this stage, the SLD market is insufficiently developed to create a definitive list of amendments to the data management process that may be required, so counterparties may need to look at the key data components and processes relevant to SLDs and consider certain issues on a case-by-case basis. Long-term, any data strategies adopted should be discussed at a market-wide level so that firms can collaborate in achieving a common data goal. This will involve adopting appropriate data standards and data sources that are incorporated in and utilize existing frameworks such as the CDM and Financial products Markup Language (FpML). This would allow consistent implementation and use of these standards across the market. This section provides potential approaches to expand the data set with additional metadata for SLDs.







Certain components of SLDs may lead counterparties to classifications based on existing product types. For example, an SLD that has an exchange of cashflows based on interest rates is likely to be classified primarily as an interest rate swap (IRS). However, if the ESG overlay of such an SLD includes a mechanism by which cashflows paid and received can be adjusted, then it may be important to differentiate that SLD from a business-as-usual IRS with additional classification to highlight this mechanism.



- Understand the usage of any additional classification, or the processes that may require such additional classification;
- Assign the additional classification as a secondary classification in the example outlined above, the primary classification would be IRS, and any sub-classification would be a brief description of the ESG overlay of the SLD;
- Define the potential input values for SLDs within a sub-classification;
- Ensure the number of possible classification values is concise and does not over-complicate the overall data set;
- Coordinate any determined ESG classification with trade counterparties so that any reconciliation occurring between the trade counterparties is based on consistent additions to the data set; and
- Consider any additional classification that may need to be applied to satisfy any regulatory requirements, including in any reporting jurisdiction. For example, future requirements may require data to show if an SLD is a type-one SLD or a type-two SLD, as defined in the 'Documentation' section.









Event Monitoring

The KPI associated with SLDs has the potential to alter the terms of the trade throughout its lifecycle, depending on whether various events occur. It may not be possible to condense any relevant KPIs or ESG targets into a concise data set, but it will be important to have the ability to monitor events linked to KPIs and ESG targets. Monitoring of the KPIs will allow for impacted data points, depending on the provisions of the KPI, to be updated, ensuring downstream processes such as cashflow management and valuations are using an accurate reflection of the current terms of the trade. This will not only be crucial for managing the current terms of the SLD, but also to capture a historic view of the original terms.

As the volume of SLDs in the market increases, the pool of available data relating to KPIs and ESG targets will increase, improving efficiencies in SLD lifecycle management. However, with the currently available data, market participants may wish to consider capturing the following data relating to ESG-specific events:

Frequency

If an event occurs multiple times during the life of the SLD, data denoting the frequency of monitoring may be required.

Outcome

Determine if data relating to the outcome of the event should be recorded to identify possible consequences. For example, if an event results in an increase or decrease of a fixed coupon then the value of the increase or decrease could be stored.

Purpose

Applying a data set for a monitoring condition could allow event monitoring to be managed in way that will remove the need to reference the original document. After any event, it will be important to ensure smooth transportation of the data and processing of associated lifecycle stages.









Other Data Considerations

Counterparties will need to consider any other data points that are needed to assist with the following functions:

- Valuation (required for functions within most operational areas and for collateral management);
- Cashflows (in the form of daily accrual calculations and profit and loss); and
- Transaction processing (if an event results in payments needing to be processed, the relevant team will need to be alerted).

These functions will rely on data relating to the ESG overlay of an SLD being captured and stored to generate an accurate output. Where it may not yet be feasible to store the relevant data, a reference point to the original source documentation may be needed to allow quick access and bridge any potential gaps.

Sustainability-linked Derivatives: Where to Begin?









Systemic Management

Once the types of data that need to be stored have been determined, it is important to understand how transportation of this data between different teams within an entity will occur. Naturally, as volumes of a traded product increase within a portfolio, the need to manage the relevant data set systemically will increase. Firms will need to consider how this can be systemically managed to mitigate operational risk (for example, incorrect valuation of the SLD and incorrect regulatory reporting).

In the long term, any structural changes to a data model, as with amendments to data strategy, should be considered at a market-wide level to help to achieve commonality across the market. Where appropriate, existing data standards and frameworks such as CDM, FpML, FIX or ISO 20022 may need to be enhanced to cater for relevant data points and to aid consistent implementation and usage (ie, via processing and functional standards built into CDM). This approach should help to create uniformity in data treatment and transparency between counterparties.

Firms should recognize that any structural changes to data processes should be robust enough to deal with any future changes in the SLD market. Regulatory developments (as discussed in the 'Regulatory and Risk Considerations' section) will be key to this, given the infancy of the SLD market. Reporting requirements will evolve over time and the emphasis on accurate storage of data will only increase as the volume of SLD trading grows.

Sustainability-linked Derivatives: Where to Begin?

CONCLUSION

As the volume of SLD transactions continues to increase globally, it is imperative that key information and considerations regarding these types of transactions be centralized and more readily available to bring greater transparency to the market. This paper acknowledges ISDA's work on the development of these transactions, but it also highlight further issues market participants need to address.

There is currently no market standard documentation readily available, because SLDs continue to evolve and the use of SLDs varies significantly by jurisdiction. As such, existing OTC regulatory requirements are the most applicable to these transactions. The ISDA Future Leaders in Derivatives program intends for its work to complement ISDA's other papers on this topic and to align with the broader agenda of market participants as they enter into SLD transactions, and to support regulators as they develop regulation for this market.

APPENDIX 1

Application to the Trade Lifecycle

Paper Section	Pre-trade	Trade Execution	Post-trade	Trade Termination		
INTRODUCTION	INTRODUCTION					
What Are SLDs?	√					
Why Use SLDs?	✓					
REGULATORY AND RISK CONSIDERATIONS						
The Regulatory Framework for SLDs	√	√	√			
Greenwashing	✓	1		✓		
Prudential Capital and Risk Considerations	✓	✓		✓		
Additional Risk Considerations	√	√		✓		
DOCUMENTATION						
Key Provisions	✓		1	1		
Do We Need Standardization?	✓					
KPI DISCLOSURE AND VERIFICATION						
Disclosure			√	1		
Verification			✓			
Additional Considerations When Using a Third-party Verifier	✓		✓			
DATA MANAGEMENT	DATA MANAGEMENT					
Classification	1	1	1			
Event Monitoring	✓		√	✓		
Other Data Considerations	1	1	1	1		
Systemic Management	1	1	√	1		

APPENDIX 2

List of Contributors

Firm	Name
Allen & Overy LLP	Victoria White
Bank of America	Olga Manko
Bank of Ireland	Semin Soher
Bank of New York Mellon	Mitul Amin
ВР	Tim Kavanagh
China International Capital Corporation Limited	Sharon Leong
Citigroup	Joslyn Correa
CME Group	Katherine Hughes
CMS	George Gledhill
DBS Bank Ltd	Joanna Chan
Deutsche Bank	Hanae Seffar Andaloussi
FinTrU	Sinead Beacom
Goldman Sachs	Chelsea Nitkowski
Juris Corp	Smrithi Nair
King & Wood Mallesons	Ryan Iskandar
Linklaters	Leanne Banfield
Mayer Brown International LLP	Alice Harrison
Nomura Securities Co., Ltd	Saori Kawasaka
RBC Capital Markets	Chiara Crognoletti
Shanghai He Ping Law Firm	Kimi Liu
Travers Smith	Vanessa Kalijnikoff Battaglia
Westpac	Kendall Park
White & Case	Nathaniel Crowley

DISCLAIMER

This paper does not present an exhaustive explanation of all relevant issues relating to SLDs and does not constitute legal, accounting, regulatory, financial or other professional advice. Additional issues that may be relevant for potential market participants may include, but are not limited to, pricing of SLDs and capital treatment of SLDs. As with all market information and guidance that ISDA disseminates, market participants are free to choose alternative means of transacting, structuring and documenting their SLDs. This paper is not intended to specify or recommend any particular approach to transacting in SLDs. Parties should therefore consult with their legal advisors and any other advisor they deem appropriate prior to entering into an SLD transaction.

ABOUT THE IFLD

The ISDA Future Leaders in Derivatives (IFLD) program aims to make a positive impact on the future of the derivatives industry by identifying a diverse group of emerging leaders across the industry. The program has four core objectives: to create an active forum for networking and discussion of industry topics and future industry trends; to increase the demographic, cultural and professional diversity of senior leaders within the financial services sector; to support emerging leaders in developing soft skills and technical expertise; and to develop and produce content on issues of strategic importance to ISDA and its members. For more information on the IFLD program, please contact IFLD@isda.org.

ABOUT ISDA

ABOUT ISDA Since 1985, ISDA has worked to make the global derivatives markets safer and more efficient. Today, ISDA has over 980 member institutions from 78 countries. These members comprise a broad range of derivatives market participants, including corporations, investment managers, government and supranational entities, insurance companies, energy and commodities firms, and international and regional banks. In addition to market participants, members also include key components of the derivatives market infrastructure, such as exchanges, intermediaries, clearing houses and repositories, as well as law firms, accounting firms and other service providers. Information about ISDA and its activities is available on the Association's website: www.isda.org. Follow us on Twitter, LinkedIn, Facebook and YouTube.