RESEARCH REPORT

JUNE 2018

Win-Win-Win: The Sustainable Supply Chain Finance Opportunity

Incentivizing Environmental, Social, and Governance Performance with Supply Chain Finance

HUMANITY UNITED

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The Business of a Better World

About This Report

The main objective of this report is to build consensus and demystify the opportunity to integrate environmental, social, and governance (ESG) considerations into supply chain finance, allowing buyers, suppliers, and financial service providers to build supply chain finance mechanisms that reward and incentivize sustainable behavior in global supply chains.

REPORT AUDIENCE

The insights presented are primarily tailored toward large multinational buyers, including corporate finance and treasury departments, procurement departments, and sustainability departments, as well as finance providers, including commercial banks with trade and supply chain finance teams. The report will also interest multilateral banks, suppliers of global supply chains, sustainability assessment and data providers, and service providers such as FinTechs or transaction platform providers.

REPORT SCOPE

The scope of this report covers global supply chains and financing the trade that takes place in those supply chains, across industries. The terms “sustainable” and “sustainability” refer to the management of environmental, social, human rights, and governance impacts in global supply chains.

ACKNOWLEDGEMENTS

This report was written by Charlotte Bancilhon, Christoph Karge, and Tara Norton with additional guidance and insights provided by Karlyn Adams, John Hodges, and Eric Olson. Any errors that remain are those of the authors. Please direct comments or questions to Charlotte Bancilhon at cbancilhon@bsr.org.

BSR developed this report with the funding of Humanity United. Humanity United is a foundation dedicated to bringing new approaches to global problems that have long been considered intractable.

The authors wish to thank the experts interviewed for this report (see the list in the Appendix). We would also like to especially thank those who have reviewed the report for their insights and contributions, including Michael Bennett, J.T. Burke, Doina Buruiana, Emmanuel Galzy, Inwha Huh, Virgine Poulin, and Selby Wells. Special thanks to J.T. Burke for his continuous guidance and review at all stages of this research project.

DISCLAIMER

SUGGESTED CITATION

Bancilhon, Charlotte, Christoph Karge, and Tara Norton. 2018. “Win-Win-Win: The Sustainable Supply Chain Finance Opportunity.” Report. BSR, Paris.

List of Acronyms

ADB – Asian Development Bank

AML – Anti-Money Laundering

CDP – (formerly) Carbon Disclosure Project

DFID – Department of International Development (Government of the United Kingdom)

EBRD – European Bank for Reconstruction and Development

ESG – Environmental, Social and Governance

FinTechs – Financial Technology (companies)

GMAP – Global Map of Environmental and Social Risks in Agro-Commodity Production

GTFP – Green Trade Finance Program (e.g., EBRD and IFC)

ICC – International Chamber of Commerce

IFC – International Finance Corporation

ILO – International Labour Organization

KYC – Know Your Customer

MSMEs – Micro, Small, and Medium-Sized Enterprises

SCF – Supply Chain Finance

SDGs – United Nations Sustainable Development Goals

SME – Small and Medium-Sized Enterprises

TBML – Trade-Based Money Laundering

WCR – Working Capital Requirement

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Executive Summary

Leveraging supply chain finance mechanisms to incentivize sustainable behaviors in global supply chains is an opportunity for businesses and for sustainability. Embedding sustainability factors into the widespread and growing practice of supply chain finance assigns value to supply chain sustainability programs, provides tangible incentives to suppliers and their buyers, and has the potential to open new markets to banks and transform supply chains.

Companies around the world have recognized that the sustainability challenges within their supply chains are a risk and an opportunity to be managed. As such, it has become normal practice for companies to have programs in place to manage the environmental, social, and governance (ESG) risks in their supply chains. Most reputable global companies have supply chain sustainability programs in place to assess and manage the human rights, labor, governance, environmental, and other risks of their suppliers. These programs are largely based on risk management activities such as supplier assessments and audits.

However, after more than 25 years of corporate supply chain sustainability programs in action, environmental, human rights, and governance issues are still pervasive in global supply chains. There is an opportunity to do more to drive better performance among suppliers, not only at the first tier, but also at tiers deeper in the supply chain.

Global suppliers continue to face financial challenges. Businesses in supply chains are often in need of working capital to bridge payment gaps. While some research suggests that meeting sustainability standards and requirements makes firms more profitable, standards also come at a cost that is not always rewarded with tangible benefits.[1]

Why Now for Sustainable Supply Chain Finance

Sustainable supply chain finance is defined as **supply chain finance practices and techniques that support trade transactions, in a manner that minimizes negative impacts and creates environmental, social, and economic benefits for all stakeholders involved in bringing products and services to markets.**

There are five main reasons why sustainable supply chain finance is a strong opportunity today:

1. Supply chain finance is a fast-growing market, with expansion of about 20 percent annually.[2]
2. Supply chain finance is becoming digital; moving away from a traditionally paper-based process offers potential for innovation.

[1] World Bank, 2017.

[2] McKinsey. 2015.

3. Companies need working capital, and cash optimization is a tangible incentive for both buyers and suppliers.
4. Supplier sustainability performance data is still not perfect, but it is getting more and more quantifiable and readily available.
5. Financial service providers offer solutions that can integrate sustainability data.

The Opportunity

Most companies are not yet putting in place sustainable supply chain finance programs, and banks are not yet readily offering these services. However, buying companies, supplying companies, and financial services can explore and maximize this opportunity in different ways.

GLOBAL BUYERS

Global buyers have an opportunity to integrate ESG considerations into the supply chain finance program they offer their suppliers. Sustainable supply chain finance offers a unique solution to global buyers to achieve their sustainable sourcing goals, increase security of supply, and improve relationships with suppliers by rewarding and incentivizing sustainable behaviors in the supply chain, at reasonable direct cost to the company, if any.

FINANCIAL SERVICE PROVIDERS

There are US$2 trillion in financeable highly secure payables globally[3] and an estimated trade finance gap of US$1.5 trillion.[4] We estimate that in time the sustainable supply finance market will reach one third of the market, or US$660 billion, representing a US$6 billion opportunity in sustainable supply chain finance revenue for financial service providers.

Financial service providers should develop and offer sustainable supply chain finance solutions. This is a way banks can accompany their clients in meeting their sustainability objectives and differentiate product offerings from competitors.

Financial service providers should integrate ESG considerations in their Know Your Customer (KYC) due diligence processes. This will help banks mitigate reputational risks and reduce credit risks by providing finance to firms with better sustainability and overall management practices. Research points to the link between stronger ESG performance and lower credit risk.[5] Banks have made public commitments to sustainable or green finance goals, and sustainable supply chain finance products help them meet these goals.

SUPPLIERS

Sustainable supply chain finance can provide suppliers with access to working capital, stronger relationships with their customers, and the ability to quantify the value of their sustainability efforts.

Suppliers should invest in their labor, human rights, environmental, and governance performance to gain access to working capital solutions and financial incentives. For example, with a preferential

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[3] McKinsey. 2015.

[4] ADB. 2017.

[5] For the relation between ESG performance and lower credit risk see, for example, Hermes Credit, 2017, available at: www.hermes-investment.com/ukw/wp-content/uploads/sites/80/2017/04/Credit-ESG-Paper-April-2017.pdf; or Allianz Global Investors, 2016, available at: https://us.allianzgi.com/en-us/insights/esg/how-does-esg-affect-the-credit-rating-of-corporate-bonds; or Project ROI, 2015, available at: www.issuelab.org/resource/project-roi-report-defining-the-competitive-and-financial-advantages-of-corporate-responsibility-and-sustainability.html.

discount rate of one percentage point, a sustainable payables finance program could provide a supplier with an incentive of US$5,000 for US$1 million in receivables, assuming payment terms of 90 days and against their own funding cost of 5 percent.

Sustainable Supply Chain Finance Solutions

This report highlights three promising supply chain finance mechanisms to reward, incentivize, and fund sustainable supply chains: payables finance, sustainable trade loans, and smart contract solutions. These mechanisms have the potential to offer tangible commercial and sustainability benefits to global buyers, finance providers, and suppliers. Today there are only a handful of public examples of global buyers and finance providers that have implemented these solutions, and there are untapped opportunities to explore them further and scale successful models.

Sustainable payables finance solutions involve integrating ESG performance criteria into buyer-led supply chain finance programs, allowing global buyers to reward and provide tangible benefits (e.g., better discount rates) to select suppliers (e.g., those with strong sustainability performance). This solution applies to global companies that have or are setting up supply chain finance programs and want to offer a direct incentive to their own suppliers.

Sustainable trade loans are loans provided to a supplier or seller of goods or services for the sourcing, manufacture, or conversion of raw materials into finished goods, which have proven sustainability attributes or environmental or social benefits. This solution applies when a supplier needs financing for sustainable goods and projects.

Smart contract solutions are self-executing contracts with the terms of the agreement between buyer and seller directly written into lines of code, including a distributed, decentralized blockchain network. Smart contracts make transactions traceable, transparent, and irreversible, the tenets of a sustainable supply chain. This solution would be best applied when multiple actors in a vertical supply chain want to create sustainable change.

Sustainable supply chain finance is an unrealized opportunity to improve supply chains while also achieving sustainability goals. We encourage buyers, suppliers, and finance providers to leverage supply chain finance in support of responsible and sustainable supply chains.

1. What Is Supply Chain Finance?

According to the World Trade Organization, as much as 80 percent of international trade is supported by some form of trade finance. Supply chain finance (SCF) is a fast-growing and fairly nascent form of trade finance, driven by the shift toward open account trade.[6] According to McKinsey, SCF represents a potential revenue pool of US$20 billion, with only US$2 billion tapped today.[7]

What Are Trade Finance and Supply Chain Finance?

In this section, we explain how trade finance and supply chain finance works, for the benefit of the non-financial expert audience of this report. For this report, the terms “trade finance” and “supply chain finance” are defined as outlined by the Global Supply Chain Finance Forum.[8] The figure below gives an overview of the key terminology used throughout the report.

Figure 1: Key Terms on Trade and Supply Chain Finance

Trade Finance

Umbrella term used for a range of traditional trade finance techniques such documentary credits, documentary collections, and guarantees.

Supply chain finance (SCF)

The use of financing and risk mitigation practices and techniques to optimize the management of the working capital and liquidity in supply chains. Supply chain finance is typically applied to *open account trade.** In practice, SCF provides solutions to bridge the gap between the needs of the supplier, who wants to be paid as early as possible and the buyer, who generally wants to delay payment to improve cash flow. This issue is common in trade and often leaves suppliers without working capital to meet ongoing expenses and having to borrow to plug the gap in their trade / cash conversion cycle.

Buyer-centric mechanisms	Supplier-centric mechanisms
Mainly “Payables Finance,” where the buyer typically arranges a payables finance program in favor of its suppliers.	Mainly “Receivables purchase,” “Loan or Advance against receivables,” and “Pre-shipment finance,” where the supplier seeks a working capital solution from a finance provider.

**See footnote 6.*

Source: ICC et al., 2016.

[6]According to the Global SCF Forum’s Standard Definitions for Techniques of Supply Chain Finance, “Open Account refers to trade transactions between a seller and a buyer where transactions are not supported by any banking or documentary trade instrument issued on behalf of the buyer or seller. The buyer is directly responsible for meeting the payment obligation in relation to the underlying transaction. Where trading parties supply and buy goods and services on the basis of open account terms, an invoice is usually raised and the buyer pays within an agreed time frame.”

[7] McKinsey, 2015.

[8] ICC et al., 2016.

How Does Supply Chain Finance Work in Practice?

Most of today's trade and supply chain relationships depend on open account trade, meaning that goods and services are delivered before payment is due, which is typically in 30, 60, or 90 days, but in some cases can go substantially beyond the 90 days. Open account trade is advantageous to the buyer while the supplier of the good or service takes on most of the risk and needs to bridge its financing needs until getting paid by the buyer.

Supply chain finance closes this financing gap and provides the suppliers with financing, also called working capital, before the buyer's payment is due. Although there are various forms to structure such financing, they usually involve two to four parties:

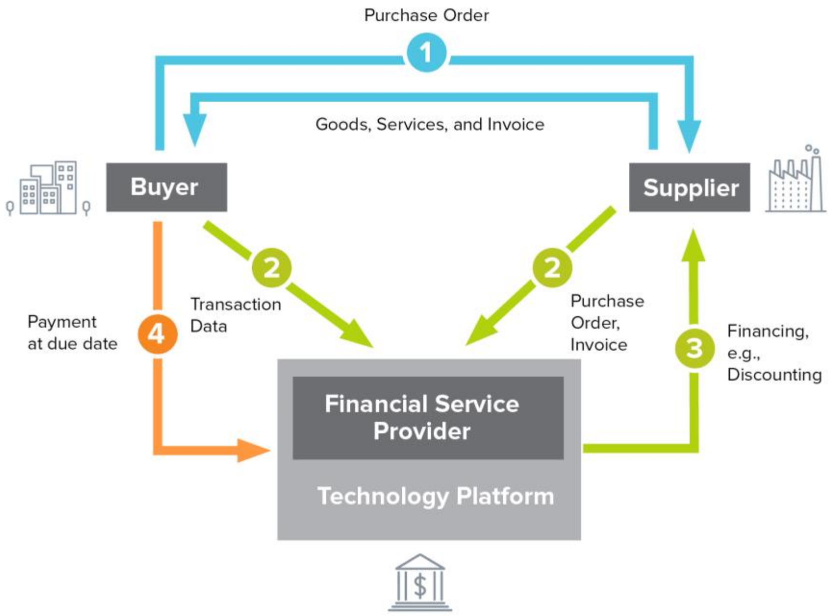
» **The Supplier** can reach out directly to financial service providers and take up short-term financing, typically in the form of selling its invoices. Alternatively, the buyer has arranged a supplier-financing program that the supplier can access, drawing on pre-defined financial service providers.

» **The Buyer** provides the payment at due date. Depending on the structure of the program, the payment will be made either directly to the financial service provider to reimburse the financing taken up by the supplier or is made to the supplier, who in turn pays for the financing obtained by the financial service provider.

» **The Financial Service Provider**, usually a bank, factoring house, or investment fund, makes available "bridge financing" to the supplier either upon the supplier's direct request or via the buyer's SCF program, taking a small fee, and utilizing the buyers' credit rating.

» **The Technology Platform** is an IT system that brings together the supplier, the buyer, and the financial service provider. The platforms can be developed by the finance provider or provided by a third party. They replace formely paper-based processes and increase the efficiency of transactions.

Figure 2: Overview of Flows of Goods, Documentation, and Financing in Supply Chain Finance



Note: This figure is for illustrative purposes only. The structure presented is an example—there are many other ways to set up supply chain finance transactions.

What Are the Benefits of Supply Chain Finance?

Supply chain finance exists primarily to maximize the working capital of both the buyer and the supplier and provides benefits to both parties.

» **Maximize working capital:** Supply chain finance can maximize working capital for both buyers and suppliers. Buyers often set up these programs when they seek to increase their payment terms. For example, if a buyer would like to increase its payment terms from 30 to 90 days, it will set up a payables finance program for its suppliers. Suppliers also benefit from increased access to working capital when they participate in a supply chain finance program, as the bank will pay them immediately upon production of the purchase order, less a financing fee.

» **Enable access to better financing for suppliers:** One of the key advantages of a Payables Finance program is that suppliers have access to their buyers' strong credit ratings with lower implied cost of funding. As it is the supplier's decision to take part in the program, the benefits in terms of working capital optimization, cash flow forecasting, and provision of alternative sources of funding need to be sufficiently high.[9]

» **Flexibility for suppliers:** Typically, suppliers have the flexibility to discount their receivables or not. Suppliers may choose to discount receivables at certain times when they need cash. However, in other cases, suppliers do not have the flexibility to choose to discount their receivables or not; either they take part in a program and discount receivables by default or they choose not to onboard the program and will not be able to discount via the program.

In many—but not all—cases, larger suppliers have access to these programs, while there is less appetite by banks to onboard suppliers with smaller receivables. This is because there is a cost to onboard suppliers, and to perform the necessary KYC and compliance checks. One bank said the general rule of thumb is that costs outweigh benefits for suppliers that have less than US$350,000 in receivables, depending the duration and the composition of the account receivable.

Supply chain finance exists primarily to maximize the working capital of both the buyer and the supplier and provides benefits to both parties.

[9] *Source: BSR research and BAFT, EBA, et al., 2016.*

2. Enhancing Supply Chain Finance with Sustainability: The Opportunity

Most companies are not yet putting in place sustainable supply chain finance programs, and banks are not yet readily offering these services. However, buying companies, supplying companies, and financial services can explore and maximize this opportunity in different ways.

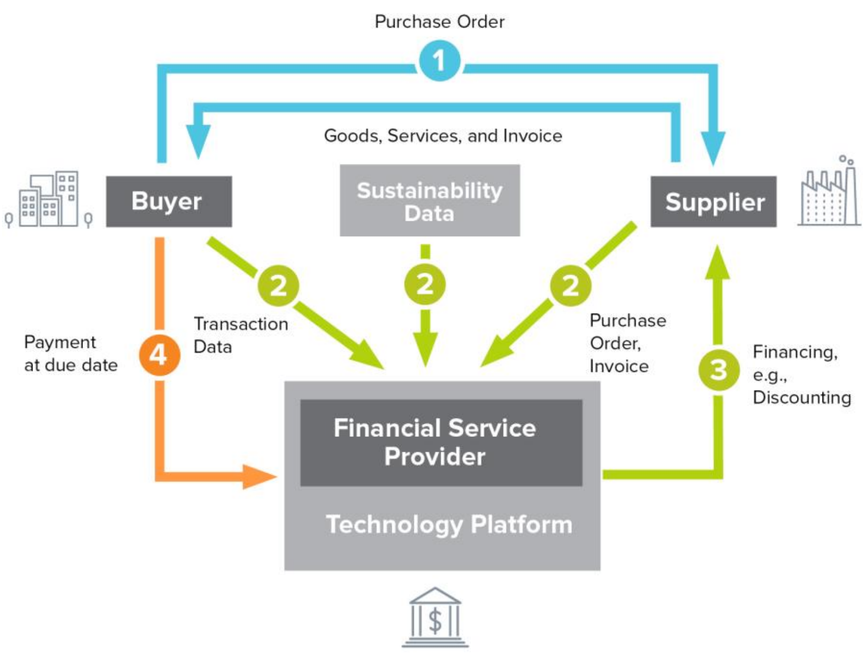
Defining Sustainable Supply Chain Finance

Sustainable supply chain finance can be defined as follows:

Supply chain finance practices and techniques that support trade transactions, in a manner that minimizes negative impacts and creates environmental, social, and economic benefits for all stakeholders involved in bringing products and services to markets.

Sustainable supply chain finance takes regular supply chain finance and integrates ESG considerations, using consistent methodology and data to rank supplier sustainability performance, either by the buyer or a third party. The sustainability performance information must be consistent and robust for a financial service provider to factor it into its calculations.

Figure 3: Integrating Sustainability into Supply Chain Finance



BENEFITS OF SUSTAINABLE SUPPLY CHAIN FINANCE

Sustainable supply chain finance provides all of the benefits of supply chain finance, with the additional benefit of rewarding, incentivizing, and funding sustainable behaviors in the supply chain, with reasonable direct cost to the buying company, if any. This type of financing reinforces a company's commitment to sustainability, strengthens the sustainability expectations for suppliers, and can contribute to a company becoming a buyer of choice and improving security of supply. It also puts a value on the sustainability efforts of suppliers, providing them with an internal business case for more sustainable improvements.

There are US$2 trillion in financeable highly secure payables globally,* and an estimated trade finance gap of US$1.5 trillion.** We estimate that in time the sustainable supply finance market will reach one third of the market, hence US$660 billion, representing a US$6 billion opportunity in sustainable supply chain revenue for financial service providers.

US$2 trillion
in financeable highly secure payables globally

US$660 billion
potential sustainable supply chain finance market

US$6 billion
revenue opportunity for financial service providers

*** McKinsey. 2015. "Supply-chain finance: The emergence of a new competitive landscape."**
****ADB. 2017. "Trade Finance Gaps, Growth, and Jobs Survey."**

Why Now for Sustainable Supply Chain Finance?

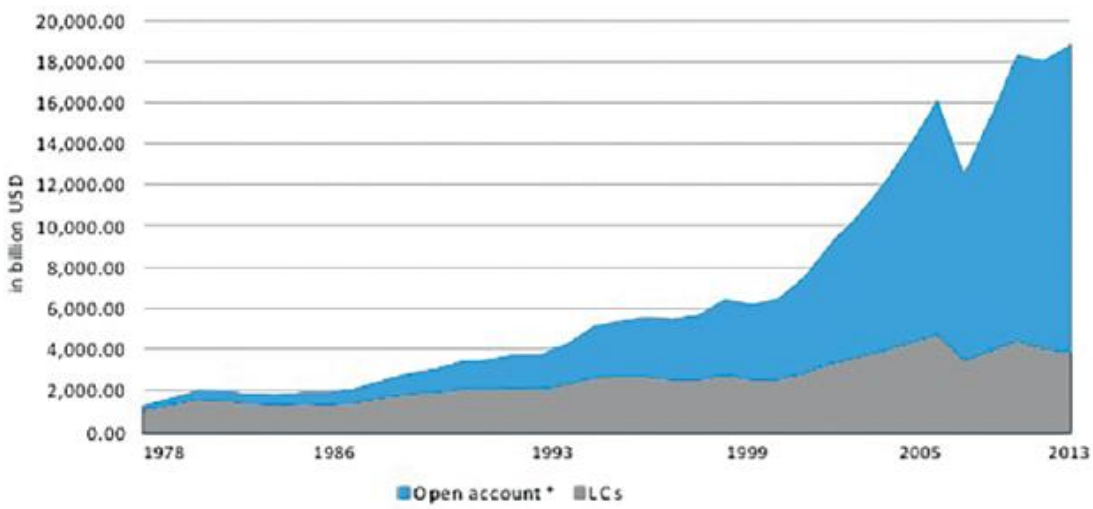
There are five main reasons why sustainable supply chain finance is a strong opportunity today, related to developments in supply chain finance that drive this offering as well as the benefits to buyers, suppliers, and financial service providers:

- Supply chain finance is a fast-growing market.
- Supply chain finance is becoming digital.
- Companies need working capital, and cash optimization is a tangible incentive for both buyers and suppliers.
- Supplier sustainability performance data is still not perfect, but it is getting more quantifiable and readily available.
- Financial service providers offer solutions that can integrate sustainability data.

SUPPLY CHAIN FINANCE IS A FAST-GROWING MARKET

While letters of credit were the dominant trade finance mechanism historically, world trade has seen a startling increase in open account transactions since the 1990s. The graph below demonstrates the slow growth of traditional trade finance compared to the exponential growth of open account trade, which now represents more than 80 percent of total world trade volume.

Figure 4: Development of Foreign Trade (Exports), 1978-2013



Source: ICC et. al., 2016 referencing UniCredit Group, 2015.

In the past 15 years, financial service providers have developed new SCF solutions and innovations to support open account trade under the various terms of factoring, reverse factoring, working capital solutions, etc.[10]

[10] The Global Supply Chain Finance Forum saw a need to clarify and build industry consensus around common definitions and terminology across this fast-evolving space and published its Standard Definitions, see: ICC et al., 2016.

Today, SCF remains a high growth area, with 38.4 percent of ICC 2017 survey respondents identifying SCF as the greatest potential for growth and evolution in the financing of international trade.[11] McKinsey research stated that the SCF market showed 20 percent growth from 2010 to 2014 with a projected growth of 15 percent per year from 2015 to 2019.[12] In contrast, traditional trade finance, such as letters of credit, is expected to exhibit little or no growth.

SUPPLY CHAIN FINANCE IS BECOMING DIGITAL

Trade finance remains a paper-based, labor-intensive activity, where trade finance providers complete compliance checks of paper documents against requirements listed in the letter of credit. However, trade is moving toward a paperless digitized model, replacing these processes with largely automated transactions. For example, Wells Fargo and commodity trader Cargill launched the first electronic export letter of credit in 2016.

Technology provided by FinTechs is driving the ability to provide flexible solutions to buyers and suppliers. FinTechs provide technology-enabled supply chain finance platforms, which facilitate supplier onboarding and receivables management. FinTechs are also providing solutions to facilitate KYC processes, thus reducing the cost of due diligence. More than 40 percent of ICC 2017 survey respondents believe that digital channels will have significant to transformational impacts on trade finance solutions. The elimination of paper from trade finance is thought to have significant cost-reduction opportunities, for example by reducing compliance costs by 30 percent and increasing the ability to serve SMEs.

Distributed ledger technology (for example blockchain) is a promising technology for trade finance and supply chain management, which could provide the ability for better verification of sustainability performance. This technology allows multiple parties to record transactions in a verifiable and permanent way. The ledger is decentralized and not owned by any one party. One important blockchain application for trade is Smart Contracts, self-executing contracts with the terms of buyer-supplier agreements being written into the lines of the code.

COMPANIES NEED WORKING CAPITAL, AND CASH OPTIMIZATION IS A TANGIBLE INCENTIVE FOR BOTH BUYERS AND SUPPLIERS

The supply chain finance market is booming because it is an attractive opportunity for all of the key parties: buyers, suppliers, and finance providers. Buyers and suppliers gain access to working capital and flexible cash management solutions, while banks gain revenue through providing short-term finance.

All businesses, particularly suppliers in cash-poor industries, need working capital to meet their day-to-day expenses. In global supply chains, large buyers have a responsibility to treat suppliers fairly and support their financial sustainability. Access to trade finance and working capital is part of the solution.

Based on bank-reported rejection rates for trade finance transactions, the ADB 2017 survey[13] found a trade finance gap of US$1.5 trillion. Micro, small, and medium-sized enterprises (MSMEs) face more difficulty accessing trade finance than large firms, with banks reporting that 74 percent of rejections come from MSMEs and mid-cap firms. In addition, emerging countries are disproportionately affected by rejections, with China and India accounting for the largest proportion of rejections. Lastly, women-

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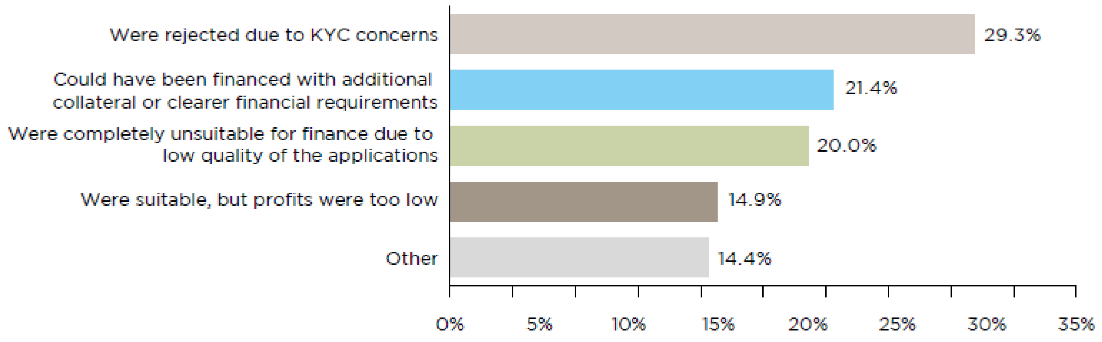
[11] ICC, 2017.

[12] McKinsey, 2015.

[13] Di Caprio, A., et al., 2017.

owned firms were 2.5 times more likely to have 100 percent of their proposals rejected by banks than male-owned firms.

Figure 5: Reasons for Rejecting Trade Finance Transactions



Source: ICC, 2017.

SME access to credit is inhibited by inter-related factors. The Supply Chain Finance Forum cites capital and liquidity requirements on banks disfavoring SMEs; higher onboarding, compliance, and servicing costs as a percentage of revenue; and availability of quality data for credit assessment.[14]

SUPPLIER SUSTAINABILITY PERFORMANCE DATA IS IMPROVING AND AVAILABLE

The availability of supplier sustainability data is a critical factor and a key input to sustainable supply chain finance. Today, changes in regulatory environment encourage ESG due diligence and data gathering, e.g., the U.K. Modern Slavery Act or the recent French legislation on companies' duty to care ("*devoir de vigilance*").

While sustainability performance data is not perfect, it is improving significantly over time, and data providers are beginning to integrate artificial intelligence, machine learning, and worker voice technology[15] to improve the reliability of performance scores. In addition, the convergence of standards is making it easier to develop a consistent approach to measuring the sustainability performance of suppliers.

Broadly speaking, there are three types of sustainability performance data available about suppliers: third-party standards, third-party ratings, and company performance ratings.

[14] ICC, 2017.

[15] Worker voice technology includes solutions such as mobile surveys that buyers can use to engage with workers in supply chains at a scale.

In sustainable supply chain finance, buyers have the flexibility to choose the approach that works best for their company, as long as the supplier performance data is robust, credible, and verified. If the company's program is not robust enough, the financial service provider may not be able to use the information.

	Approach and Examples
Third-Party Standards	Environmental and social standards supporting sustainability in global supply chains have multiplied in the last decade, following pressure from consumers, investors, the media and civil society to ensure safe, fair, and environmentally sound practices in global supply chains. In many cases, third-party auditors are assessing supplier compliance to these standards. The International Trade Centre's sustainability standards map counts 230 standards on environmental protection, worker and labor rights, economic development, quality, and food safety, as well as business ethics, applicable to more than 80 sectors and across 180 countries.[16]
Third-Party Ratings	Ratings systems today, such as EcoVadis and the CDP Supply Chain Program, provide a rating of supplier sustainability performance. Other sources of sustainability performance data that can be incorporated into ratings include other supplier assessment platforms such as Sedex and ILO Better Factories, and vertical industry collaborative initiatives that are harmonizing industry definitions of sustainability, such as AIM-PROGRESS, Railsponsible, Responsible Business Alliance, the Sustainable Apparel Coalition, and others.
Company Performance Ratings	Leading global buyers across industries often have their own internal supplier rating systems, which are based on their own supplier assessment programs. These ratings clarify expectations for their suppliers to meet sustainability standards and may include extensive auditing programs to monitor suppliers' compliance and continuous improvement toward sustainability goals, along with other factors such as participation in capability-building or worker-empowerment programs.

FINANCIAL SERVICE PROVIDERS OFFER SOLUTIONS

As part of an overall trend of integrating ESG factors into their investment decisions and product offerings, financial service providers are developing and piloting innovative solutions to offer sustainable supply chain finance products to their clients and investors.

For example, Barclays launched its Green Product Framework[17] to develop a suite of "Green Products" across different products lines such as bonds and loans. The framework was developed in collaboration with Sustainalytics and identifies qualifying environmental themes and activities. Another example is a program developed by Deutsche Bank and the Asian Development Bank to provide more than US$200 million per year in supply chain finance to suppliers of Emirati retailer Landmark

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[16] For details on the International Trade Centre's standards map, see: https://sustainabilitymap.org/standard-identify/.

[17] Barclays, 2017.

Group. The program is designed to benefit SME suppliers that are mainly located in Bangladesh, China, India, Sri Lanka, and Vietnam.[18]

Finance providers report that they expect that roughly one-third of their supply chain finance offerings will be sustainable. Offering sustainable supply chain finance solutions is an opportunity for financial service providers for a variety of reasons:

» ESG and sustainable solutions offer a way to differentiate product offerings from competitors. This is a way they can accompany their clients in meeting their own sustainability objectives.

» Banks have made public commitments to sustainable or green finance goals, and sustainable supply chain finance products help them meet these goals.

» Institutional investors are engaging with financial service providers SCF programs through the secondary market. Sustainable SCF offerings help financial service providers attract institutional investors interested in ESG investments.

Financial service providers report that they expect that roughly one-third of their supply chain finance offerings will be sustainable.

[18] For details on Deutsche Bank's program see: www.adb.org/news/adb-deutsche-bank-enter-supply-chain-finance-deal-supporting-smes-developing-asia.

3. Sustainable Supply Chain Finance Solutions in Detail

This section describes three promising supply chain finance mechanisms to reward, incentivize, and fund sustainable supply chains: payables finance, sustainable trade loans, and smart contract solutions. These mechanisms have the potential to offer tangible commercial and sustainability benefits to global buyers, finance providers, and suppliers.

Today there are a handful of public examples of global buyers and finance providers that have implemented these solutions, but there are many untapped opportunities to explore them further and scale successful models.

Table 1: Overview of Promising Sustainable Supply Chain Finance Solutions

Lead Actor	Solution	When to Consider
Single Buyer	Sustainable Payables Finance	When a global company wants to offer a direct incentive to its own suppliers
Supplier	Sustainable Trade Loans	When a supplier needs financing for sustainable goods and projects
Multiple Actors in a Supply Chain	Smart Contract Solutions	When a group of actors are aiming to create traceability of goods and sustainability data, while unlocking SCF in vertical supply chains

SUSTAINABLE PAYABLES FINANCE

What is a payables finance program?
In a payables finance program, the buyer launches a program, often with a partnering finance provider and/or IT platform provider, for the benefit of its suppliers. The supplier has the option to discount the receivable, meaning it gets value of the receivable in cash at a discount rate prior to its actual payment due date (for example, 10 instead of 90 days). The supplier benefits from the buyer's credit risk, which is often a better rate than it can get on its own.

How does it work?

The buyer, as the anchor to the program, asks the finance or IT platform provider to use supplier sustainability information to offer preferential terms to suppliers that show strong sustainability performance. Typically, incentives include better discount rates, but other incentives could be applied, such as fast-tracking invoices.

The supplier sustainability performance can be based on the buyer's own established supplier assessment program, or it could be provided through industry assessments or certifications, such as the IFC-ILO Better Work Program, the Responsible Business Alliance's Self-Assessment score, the Sustainable Apparel Coalitions' Higg Index, or the CDP. In some cases, the buyer may want to provide preferential terms to suppliers that set ambitious targets to improve, to incentivize continuous improvement in their supply chain, and to help provide working capital to fund these improvements.

The IFC Global Trade Supplier Finance and the Asian Development Bank (ADB) SCF programs are important enablers of payables finance programs. Multilateral banks provide working capital solutions either directly to suppliers or indirectly through financial institutions to markets where commercial banks have less appetite to lend. The IFC states that, since 2012, its supplier finance program has covered US$3.5 billion in transactions to 1,000 suppliers across 15 markets, the largest of which are Pakistan, Vietnam, Bangladesh, and Mexico.

What are the benefits?

<u>Benefits to buyers</u>

» **Achieving sustainable sourcing goals**: Setting up such a program contributes to achieving the buyer's commitments and goals related to sustainable supply chain and sustainable sourcing, by offering tangible rewards to suppliers with good sustainability performance. As most of the social and environmental footprint happens in the supply chain, a payables finance program can also contribute to a company's sustainability goals more broadly—going beyond the focus of achieving selected sustainable sourcing goals.

» **Security of supply**: A sustainable payables finance program can reinforce the security of supply, by attracting suppliers with good overall management practices, as well as strengthening the financial sustainability of suppliers by offering working capital solutions.

<u>Benefits to the suppliers</u>

» **Business case for sustainability improvements:** A sustainable payables finance program helps quantify the business case for sustainability improvements, as the supplier receives tangible cash rewards for better sustainability performance. The business case for sustainability investments is hard to prove for suppliers. Fewer than half the suppliers that report to CDP were able to gauge their cost savings from emission reductions; only 36 percent of suppliers with water reduction targets could link those to financial improvements.[19] Sustainable payables finance provides some direct financial benefit for such actions.

[19] CDP, 2017.

With a preferential discount rate of one percentage point, a sustainable payables finance program could provide a supplier with an incentive of US$5,000 for US$1 million in receivables, assuming payment terms of 90 days and against own funding costs of 5 percent.

This table shows an example of the potential financial savings to a supplier that has strong ESG performance. With a preferential discount rate of one percentage point, a sustainable payables-finance program could provide a supplier with an incentive of US$5,000 for US$1 million in receivables, assuming payment terms of 90 days and against a funding cost of 5 percent, that the supplier would get on its own.

	Supplier Sustainability Performance		
	Basic	**Medium**	**Advanced**
Finance Provider's Financing Rate	3%	3%	3%
Performance-Based Supplier Financing Rate	3% +1%	3% +0.5%	3% +0%
Financing Cost for US$1m, 90 days Receivable	$ 1,010,000	$ 1,008,750	$ 1,007,500
Savings against "Basic" Sustainability Performance	$ -	$ 1,250	$ 2,500
TOTAL SAVINGS (Including Saving against Supplier's "Own" Borrowing Rate at 5%)	$ 2,500	$ 3,750	$ 5,000

What are the key barriers to scale?

Apart from a few early movers such as PUMA or Levi Strauss (see also the case study below), the uptake of sustainable payables finance has been modest so far. Some of the immediate barriers for buyers contributing to this situation are:

» **There is limited awareness among buyers that sustainable SCF solutions exist. Also, setting up a sustainable SCF scheme requires alignment across a diverse set of internal stakeholders at buyer companies.** The often-complex structure of large international companies—the buyers—can make it challenging for departments such as supply chain, procurement, accounts payable, treasury, sustainability, and logistics to create shared goals. This can result in long decision-making processes before sustainability is finally incorporated into (existing) SCF programs.

» **A key challenge is to choose the metric against which suppliers' sustainability performance is measured**. In this case, the wealth of audits and (self-)assessment schemes is a substantial challenge.[20] There is a lack of consistency and comparability of supplier assessment data: For instance, the apparel industry has adopted numerous standards, certificates, assessment, and audit approaches. However, this gets even more complicated for buyers purchasing from several industries, e.g., retail companies; they might need to select a metric for each specific supplier group.

» **In many cases, larger suppliers have access to these programs, while there is less appetite to onboard suppliers with smaller receivables.** This is due to the cost of onboarding suppliers and performing the necessary KYC and compliance checks. One bank said the general rule of thumb is that costs outweigh benefits for suppliers that have less than US$350,000 in receivables, depending on the duration and the composition of the account receivable. However, some programs do target all suppliers, including the smaller ones.

» **One criticism is that conventional SCF is the buyers' attempt to "sweeten the pill**." The trend toward longer payment terms has been apparent for at least a decade now. To avoid such criticism for sustainable SCF, buyers should refrain from changing payment terms once suppliers are onboarded.

» **There is a risk that smaller suppliers that are invited to participate in (sustainable) SCF perceive their onboarding to the system and contractual terms as being "locked in**." Especially with large international buyers, small suppliers might fear that they will not be able to expand to other markets or grow their supplier base, as a significant share of their future financing comes from the buyers' agent, i.e., a buyer-designated financial service provider.

With these barriers in mind, here are the main steps companies should follow to develop their own programs. The box below maps out some key considerations.

[20] Commerzbank, 2015.

Key steps for setting up a sustainable SCF program at your company

1 Develop shared **goals** between the Sustainability/ Procurement/Finance departments and define the spirit of the program.

2 Define what a **"fair deal" for suppliers** looks like. Incentives need to be large enough for them to join the program—especially if they have been part of a conventional SCF scheme already.

3 Identify a **financial service provider** or set of financing partners (e.g., banks, investment funds, buyers' own capital) willing to provide services in the targeted geographies and sectors.

4 Decide which **sustainability aspects to include** for supplier rating, e.g., health and safety, social, human rights, environment. Ideally, they would be aligned with your company's sustainability goals and targets.

5 Select a source for supplier **sustainability performance data** that provides comparable data across the targeted suppliers base for the SCF program.

6 If not brought forward by the potential financial service provider(s), find a suitable **technology platform** that allows for the integration of sustainability data. Make sure it is close to a one-click solution to make it as efficient to use for all parties involved.

7 **Clearly communicate** to suppliers the advantages of the program and how to access it.

CASE STUDY

PUMA, BNP Paribas, IFC Supply Chain Finance Program

The driver for a sustainable SCF program came from PUMA's Environmental Profit and Loss Account, and the finding that 94 percent of its environmental impact happens in its supply chain, beyond the company's own operations. The limited leverage on its suppliers through traditional supplier engagement led PUMA to investigate SCF as a new tool to drive sustainability.

PUMA, BNP Paribas, and the IFC launched their SCF program in 2016, providing tiered pricing of short-term financing based on PUMA's own credit standing—offering lower financing costs for suppliers that achieve a high sustainability score according to the company's internal rating system. During the first year, PUMA provided more than US$100 million in financing, covering 15 percent of its supplier base.

Support from two financial institutions for specific market segments

The two banks involved both provide financing, but for different target groups. BNP Paribas finances suppliers in developed markets, mainly Europe, and the IFC provides financing for PUMA's business partners in developing countries, i.e., apparel sourcing hubs including Bangladesh, Vietnam, and Pakistan. This complementary geographic spread makes it possible to offer SCF to a larger segment of PUMA's suppliers.

Connecting the parties: the IT Platform

The SCF program makes use of the GT Nexus supply chain management platform, a system to arrange transactions and provide suppliers with easy access to finance from BNP Paribas and IFC. With both banks using the same platform, it became easy for suppliers to obtain financing: their financing is just one click away, regardless from which of the two banks they are receiving financing.

Foundations of success: solid performance data and assessment approach

While the apparel and footwear sector is known for its abundance of audit approaches and assessment data, the coverage, quality, and consistency of PUMA's supplier data was a key success factor. IFC and BNP Paribas' ability to offer financing terms that reflect suppliers' sustainability performance depends primarily on the sustainability data available.

Another contributing factor to the success of the PUMA program is the fact that the company has a lean supplier base.

IFC and BNP Paribas still perform KYC checks for all suppliers that apply for financing.

Sources: The Economist Intelligence Unit, 2017; BNP Paribas, 2016; BNP Paribas, 2017; PUMA, 2016; and SCF Briefing, 2017.

CASE STUDY

Supporting the Financial Sustainability of Suppliers

In line with its corporate responsibility to build long-term relationships with suppliers, the French cheese manufacturer Bel Group offers early payment to its suppliers through its supply chain finance program, without increasing its own payment terms. The program focuses on France-based non-milk suppliers that are paid in 60 days.

The Bel Group program relies on a FinTech solution provided by Corporate LinX but does not include a banking partner. Bel Group uses its own working capital requirement (WCR) to finance the program. In the context of very low interest rates, this solution offers a good alternative for its cash investments. The absence of a banking partner also facilitates the focus on smaller suppliers, with lighter KYC requirements. Depending on the program uptake, the program may be expanded through the intervention of an external investor. The company estimates that it will achieve its return on investment within the first year.

Internally, the program brings together Bel Group's procurement, treasury, and IT departments. Key factors of success are internal change management and raising awareness of the benefits of the program to suppliers.

SUSTAINABLE TRADE LOANS

What are trade loans?

A trade loan is a loan, short-term in nature, provided by a finance provider to a supplier (or seller) of goods and/or services in a trade finance transaction.

How do sustainable trade loans work?

Sustainable trade loans are trade loans that support the financing of sustainable goods, services, or activities. The bank or finance provider defines what specific goods, services, or activities qualify as sustainable. For example, the IFC has a list of eligible goods under its Global Trade Finance Program Climate Smart Trade.[21] And Barclays developed its Green Product Framework[22] in collaboration with Sustainalytics to identify qualifying environmental themes and activities. Eligible goods can range from renewable energy and energy-efficient goods to certified crops (e.g. Rainforest Alliance, Fairtrade, etc.). In addition to identifying sustainable goods, the bank can also ask suppliers to set improvement targets to increase their share of sustainable goods such certified crops year-on-year. A supplier can obtain a sustainable trade loan for the working capital requirement of the eligble good or service, in line with the bank's requirements. In addition, banks can provide preferential rates to the suppliers for sustainable trade loans.

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[21] The list can be found here:

www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/financial+institutions/priorities/global+trade/gfm-tsc-gtfp-ee-info.

[22] Barclays, 2017.

Leading banks have only recently launched or are currently developing sustainable trade loan solutions. In these schemes, suppliers receive a trade loan for a qualifying good or project that is labeled as having proven environmental or social benefits.

What are the benefits?

<u>Benefits to the supplier</u>

» Sustainable trade loans are an opportunity to fund ESG improvements or sustainable goods.

» Sustainable trade loans improve the supplier's brand reputation to stakeholders as a sustainable firm. Suppliers may use the sustainable trade loan to demonstrate the sustainability characteristics of a good or service to the buyer.

» The supplier may receive a better rate when a bank's sustainable trade loan scheme offers preferential rates to eligible goods.

<u>Benefits to the buyer</u>

» Sustainable trade loans may reinforce the traceability of sustainable commodities or raw materials, for example in the case of a certified crop.

What are the barriers?

As these solutions have only recently been put to market, the barriers to uptake have not been fully identified. However, the following barriers to scale could appear:

» Building in financial incentives such as preferential rates for sustainable goods will be important to ensure the successful market uptake of this mechanism.

» Banks should ensure they have a robust methodology to identify sustainable goods and projects, as there is a risk of green- and blue-washing if the environmental and social benefits are not proven. In some cases, the entire life cycle of the product should be considered. For example, the environmental impacts related to the transport or end-of-life of the sustainable good may diminish its total benefits.

SMART CONTRACT SOLUTIONS

What is a Smart Contract?

A smart contract is a self-executing contract with the terms of the agreement between buyer and seller being directly written into lines of code. The code and the agreements contained in them exist across a distributed, decentralized blockchain network. Smart contracts allow for trusted transactions and agreements to be carried out among disparate, anonymous parties without the need for a central authority or external enforcement mechanism. They make transactions traceable, transparent, and irreversible,[23] the tenets of a sustainable supply chain.

[23] Definition adapted from www.investopedia.com/terms/s/smart-contracts.asp.

How does it work?

Blockchain technology can help provide secure and incorruptible information about the sustainability conditions in which goods are produced, including sustainability data such as data about working conditions or environmental metrics. As described by the Fintech Taskforce's *Catalysing Fintech for Sustainability* report,[24] there is an opportunity to offer finance to producers in extended supply chains in exchange for the provision of sustainability information. Suppliers provide sustainability data on the distributed ledger and in return get preferential payment terms through supply chain finance. The data requirements on attributes such as sustainability need to be standardized by working with companies and industry bodies, or by using pre-existing data standards. The goods flow through the supply chain together with a range of secure information such as invoicing, provenance, logistics, packaging, materials, and sustainability attributes. The data remains intact regardless of change in ownership. Buyers approve the receivables, conditional to compliance with its sustainability requirements, releasing financing through the supply chain. A further step could be envisioned in the system to allow suppliers to access preferential discount rates relative to their ESG performance.

What are the benefits?

<u>Benefits to buyers</u>

» Global buyers obtain verified information about the sustainability attributes of goods purchased along the supply chain, such as provenance, producer or manufacturer involved, production methods used, sustainability data, materials, allergy and dietary information, packaging information, etc. This solution has great potential to reinforce the transparency of global supply chains. By working collaboratively with peers and other actors, this approach offers the opportunity to transform supply chains.

<u>Benefits to suppliers</u>

» Suppliers that traditionally have no access to supply chain finance programs, such as raw commodity producers, have access to working capital solutions through supply chain finance, at lower cost than in certain local markets.

» In addition, this approach can be used to reward suppliers further upstream in the supply chain for their sustainable performance.

What are the barriers?

There are currently nascent projects getting off the ground using this approach. The barriers remain to be seen, but the key challenge to this approach is the inherent collaboration required. The projects will need to be tightly managed in the beginning to ensure the incentives of the different players are aligned and that uptake is strong.

[24] Cambridge Institute for Sustainability Leadership, 2017.

CASE STUDY

Piloting Collaborative Smart Contract Solutions to Support Sustainable Supply Chains in the Malawi Tea Sector

A collaboration of global buyers, global banks, and FinTechs launched a pilot in December 2017 to test how blockchain can enable product and information traceability while releasing supply chain finance along the Malawi tea supply chain. The pilot brings together Unilever, Sainsbury, BNP Paribas, Barclays, Standard Chartered; FinTech companies Provenance, Halotrade, Landmapp; is supported by the U.K.'s Department of International Development (DFID); and convened by the Banking Environment Initiative.

The pilot aims to increase transparency in Unilever's and Sainsbury's tea supply chain, covering tea producers and packaging. The technology uses smart contracts to convert supply chain sustainability data into access to supply chain finance in banks' systems, thus incentivizing suppliers to provide their data to the system. Multiple buyers and banks participate in the project, ensuring many solution providers can collaborate across the distributed ledger network. The pilot is meant to prove the system is commercially viable and can be scaled across other supply chains.

Blockchain technology can help provide secure and incorruptible information about the sustainability conditions in which goods are produced, including sustainability data such as data about working conditions or environmental metrics.

4. Important Considerations for Banks and Multilateral Institutions

Financial institutions are the backbone of sustainable supply chain finance and have a key role to play in catalyzing awareness and uptake of these mechanisms, and in general improving the integration of ESG into core products and their due diligence processes.

INTEGRATING ESG INTO KNOW YOUR CUSTOMER (KYC)

Financial service providers conduct extensive KYC, Anti-Money Laundering (AML), and Trade-Based Money Laundering (TBML) checks as they onboard customers to supply chain finance programs, in line with regulatory requirements. KYC and AML processes are applied across SCF mechanisms. There is an opportunity for financial service providers to go beyond regulatory requirements to incorporate ESG factors into KYC.

Finance providers can apply tools to identify ESG risks inherent in certain industries (e.g., certain agro-commodities such as palm, soy, cotton; mining; or oil and gas) or in certain geographies (e.g., conflict areas). Some examples of existing tools are the IFC's Global Map of Environmental and Social Risks in Agro-Commodity Production (GMAP),[25] or the IFC's FIRST for Sustainability,[26] which provides resources for banks.

What is KYC?

KYC is the process that financial service providers use to ensure that the company or individual that they will be providing finance to is a legitimate entity that is operating legally and responsibly.

Finance providers also have an opportunity to ask ESG-related due diligence questions and engage customers on how they are managing these inherent risks. Some finance providers are testing models allowing them to ask suppliers to have sustainability commitments and to report progress against these goals.

The ICC Banking Commission's Sustainable Trade Finance working group, composed of commercial and multilateral banks, is developing guidelines and solutions to identify and mitigate ESG risks in client-level KYC and transaction-level due diligence. The working group also advocates for a single integrated tool for finance providers to easily check for social and environmental risks and assess whether a certification has the requirements to minimize these risks. This information should help a bank decide whether or not to proceed with a trade transaction involving commodities produced in countries with a history of high risks.

The benefits banks achieve from these activities include the ability to help protect the bank's brand reputation by avoiding financing trade that causes environmental damage or human rights violations, or by reducing credit risk. Some research suggests that firms that have robust management of

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[25] For details on IFC's Global map of Environmental and Social Risks in Agro-Commodity Production see: www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/company-resources/gmap.

[26] For details on IFC's program "FIRST for Sustainability" see: https://firstforsustainability.org/.

environmental, labor, and human rights issues are more financially competitive, more likely to anticipate related legal requirements, and have lower credit risk.[27] For example, Arabesque and Oxford University reviewed 200 studies and found that 90 percent of those studies show that there is a relation between good ESG standards and a lower cost of capital.[28]

However, there are also drawbacks that must be considered. Banks' KYC and other compliance checks are already extensive and costly. There is reluctance to add more requirements to KYC checks, especially in an area where data may be difficult to consistently obtain. In addition, robust KYC processes have the unintended consequence of excluding SMEs, especially in emerging markets, where they are unable to face these growing requirements. Adding additional requirements may further exclude SMEs that are most in need of capital. Lastly, an underlying challenge is that the link between firms' environmental, social, and labor opportunities, risks and performance, and credit risk are not yet proven.

THE ROLE OF MULTILATERAL FINANCIAL INSTITUTIONS

While commercial banks are often hesitant to provide trade finance and SCF to SMEs in certain emerging markets, development banks have stepped in to fill this gap by providing several solutions that aim to facilitate SMEs' access to trade finance.

The IFC, the European Bank for Reconstruction and Development (EBRD), and the Asian Development Bank (ADB) all run trade finance programs, through which they provide guarantees to confirming banks to cover commercial payment risks or political risks for trade transactions in designated emerging markets. For example, the IFC's Global Trade Finance Program (GTFP) has already covered more than 54,000 trade transactions and supported over US$60 billion in emerging market trade.

Going one step further, EBRD and IFC provide preferential terms or mechanisms to spur uptake of environmentally friendly technologies. The EBRD's Green Trade Finance Program combines trade finance guarantees with medium or long-term loans. In its first year, the Green TFP has supported 220 foreign trade transactions for green technologies with a total volume of €198 million. The IFC's Climate Smart Trade initiative offers price incentives or longer tenors for equipment and projects guaranteed under its GTFP that have clearly defined climate resilience or mitigation benefits.[29]

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[27] For the ongoing trend towards building in ESG into investment decisions see 'Principles for Responsible Investments' report series at: www.unpri.org/fixed-income/shifting-perceptions-esg-credit-risk-and-ratings-part-1-the-state-of-play/78.article. For the relation between ESG performance and lower credit risk see, for example, Hermes Credit, 2017, available at: www.hermes-investment.com/ukw/wp-content/uploads/sites/80/2017/04/Credit-ESG-Paper-April-2017.pdf; or Allianz Global Investors, 2016, available at: https://us.allianzgi.com/en-us/insights/esg/how-does-esg-affect-the-credit-rating-of-corporate-bonds; or Project ROI, 2015, available at: www.issuelab.org/resource/project-roi-report-defining-the-competitive-and-financial-advantages-of-corporate-responsibility-and-sustainability.html.

[28] Clark, G., et al., 2015.

[29] For details on IFC's GTFP Climate Smart Trade see: www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/financial+institutions/priorities/global+trade/gfm-tsc-gtfp-ee-info.

5. A Call to Action

Sustainable supply chain finance is an unrealized opportunity to improve supply chains while also achieving sustainability goals. We encourage buyers, suppliers, and finance providers to leverage supply chain finance in support of responsible and sustainable supply chains.

A Call To Action

To Global Buyers

» Bring together the Procurement, Sustainability, and Treasury teams to define program goals, follow our key steps for setting up a sustainable supply chain finance program at your company, and consider which program(s) to put in place to best meet your goals:

- Set up a sustainable payables finance program to maximize working capital, improve relationships with strategic suppliers, and realize corporate responsibility goals. Integrate ESG considerations into your payables finance program to reward and provide tangible cash incentives to suppliers that have a strong ESG performance or commit to improve.
- Pilot innovative trade digitalization solutions in collaboration with other industry actors that support the traceability of sustainable goods and transparency of sustainability data in your commodity supply chains.
- Consider how your programs can offer access to working capital to suppliers that are traditionally left out, such as SMEs, suppliers in emerging markets, or diverse suppliers.

To Finance Providers, Including Commercial Banks and Factoring Houses

» Consider ESG risks in your trade finance due diligence and KYC processes with a goal of reducing reputational risks.

» Study the link between ESG risks and credit risks to build a business case for integrating ESG into trade and supply chain finance.

» Offer solutions to global buyers to set up sustainable payables finance programs. Communicate well to customers and suppliers about the benefits of such a program to them.

- Offer solutions to suppliers that support the finance of sustainable projects or goods and services such as sustainable trade loans.
- Think about how your products and services can reach suppliers with traditionally limited access to finance, such as SMEs or suppliers in emerging markets.
- Develop partnerships with multilateral banks to ensure the global reach of your products and services. Develop partnerships with technology platforms to ensure good integration of sustainability data and ease of use for buyers and suppliers.
- Participate in innovative trade digitalization pilot solutions that support traceability of sustainable goods and transparency of sustainability data.

To Suppliers

- Ask your customers how ESG performance is rewarded in their supply chain finance programs.
- As with any transaction, look at the terms you are agreeing to with the buyer.
- Invest in your sustainability performance to realize additional financial benefits from a sustainable supply chain finance program.
- Consider what kind of sustainable SCF program you might extend to your own suppliers.
- Promote the value of this type of program to your local banks.

Appendix A: Interviewees for primary research and review panel

Interviewees for primary research

Interviewee	Position	Organization
Michael Bennett	Global Director, SourceCo, Puma	Puma
Kabir Bhatia	Senior Director Finance	Nike
Patrice Bourcier	Controller Investments	Bel Group
Clarissa Dann	Editorial Director - Marketing TF/CMC	Deutsche Bank
Nicolas Dussert	Senior Sales Manager	EcoVadis
Johanna Hagelberg	Executive Vice President, Sourcing and Logistics	Stora Enso
Christian Hausherr	Product Manager Supply Chain Finance EMEA	Deutsche Bank
Fabien Jacquot	CEO	Corporate LinX
Mark Kaplan	Consultant, Sustainable Solutions	Fishcoin & Eachmile Technologies
Leora Klapper	Lead Economist	World Bank
Jan Kristensen	VP Sustainability, Telenor Group	Telenor
Kegan Lovely	Senior Vice President, ESG	Bank of America
Michael J. McDonough	Head of Corporate Trade and Supply Chain Finance Product	JPMorgan Chase
Bruno Merighi	Head of Purchasing for Railway Factories	SKF
Vincent O'Brien	Finance of International Trade – Prime Tutor	Consultant, ICC
Lasma Orlovska	Director, Head of Corporate Banking Management Office	Barclays
Georges Otiashvili	Vice President, Product Manager Global Transaction Services, EMEA	Bank of America
Olivier Paul	Head of Banking Commission	ICC Banking Commission
Layalee Ramahi	Head of Business Strategy	Tawreeq Holdings
Martin Ros	SVP, Head of Group Treasury	Stora Enso
Benoit Rousseau	Group Treasury and Insurance Director	Bel Group
David Trecker	Global Head of Supply Chain Finance	Bank of America
Shona Tatchell	CEO and Founder	Halotrade
Nevin Turk	Program Lead, Global Trade Supplier Finance (GTSF)	IFC
Remon Zakaria	Intermediated Finance Unit Lead, Associate Director	EBRD
Selby Wells	Vice President, Trade and Working Capital	Barclays
Non-disclosed interviewees	Supply Chain Sustainability	Dell
Non-disclosed interviewees	Finance, Sustainability	Li & Fung

Report reviewers

Reviewer	Position	Organization
	External Review	
Michael Bennett	Global Operations Director	PUMA
J.T. Burke	Vice President Business Development	China Systems
Doina Buruiana	Project Manager, Banking Commission	International Chamber of Commerce
Emmanuel Galzy	Head of Supply Chain Management and Structured Trade	BNP Paribas
Inwha Huh	Global Head – Structured Trade Solutions, Global Trade and Receivables Finance	HSBC
Virginie Poulin	Head of Specialized Trade Solutions Sustainability and Transformation	BNP Paribas
Selby Wells	Vice President, Trade and Working Capital	Barclays
	Report Funder	
Ryan Heman	Investments Manager	Humanity United
Dan Viederman	Managing Director	Humanity United
Sandy Tesch Wilkins	Senior Manager, Investments	Humanity United
	Internal Review	
John Hodges	Managing Director, Infrastructure and Finance	BSR
Eric Olson	Senior Vice President	BSR

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