supply chain finance

Market Assessment

NIGERIA

November 2022

UKaid
from the British people

IFC International Finance Corporation
WORLD BANK GROUP
Creating Markets, Creating Opportunities

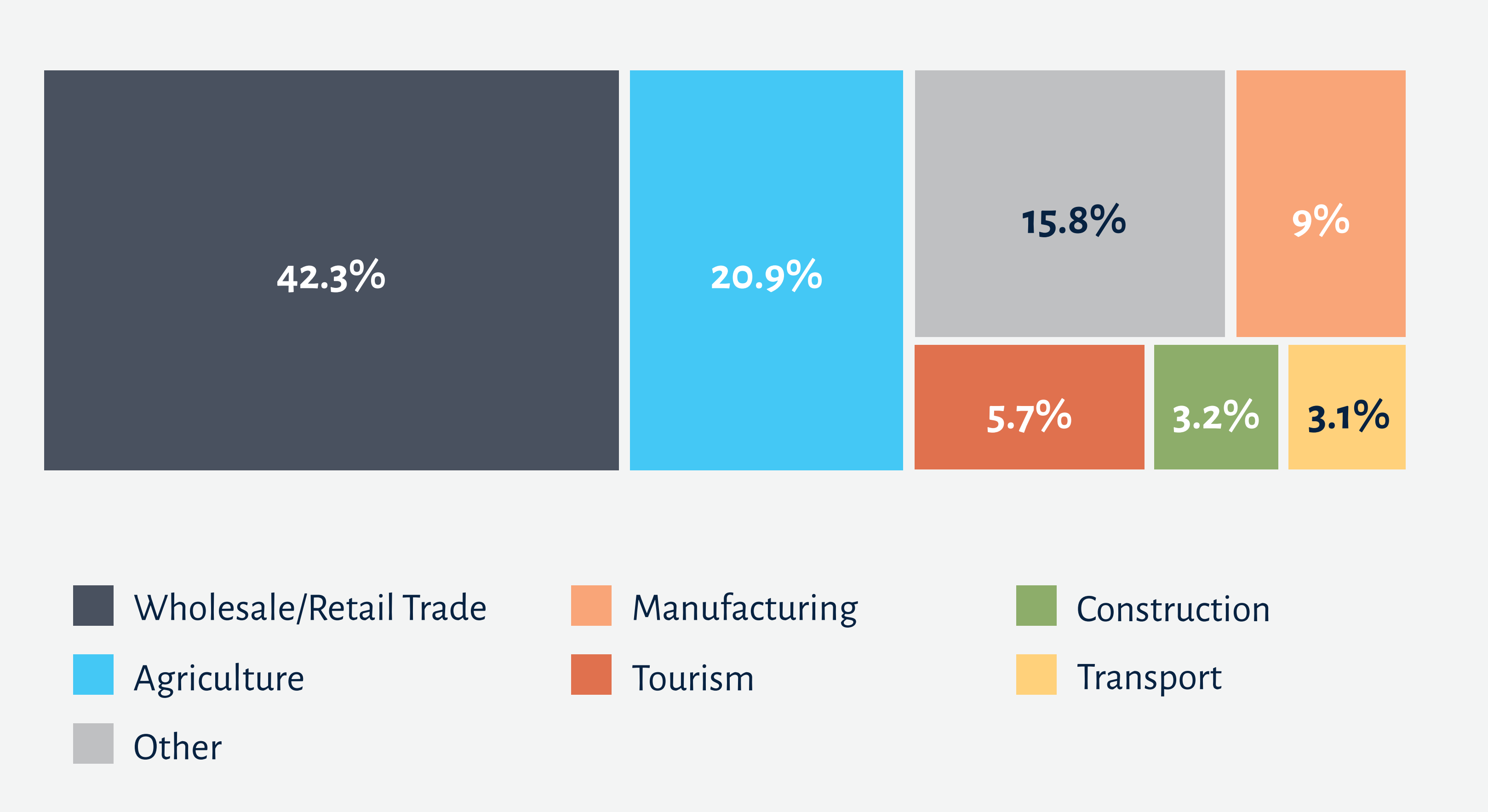
Contents

01

Introduction

The Nigerian economy is heavily reliant on crude oil exports, resulting in significant instability as global oil prices fluctuate. Economic diversification should facilitate the transition to a more stable and resilient economy and drive sustained economic growth. Catalyzing the growth of micro, small, and medium enterprises (MSMEs) will accelerate diversification as MSMEs comprise 96 percent of enterprises and represent a variety of sectors, including trade, agriculture, and manufacturing (Figure 1).[1,2]

Figure 1. Sectoral Distribution of MSMEs in Nigeria[3]

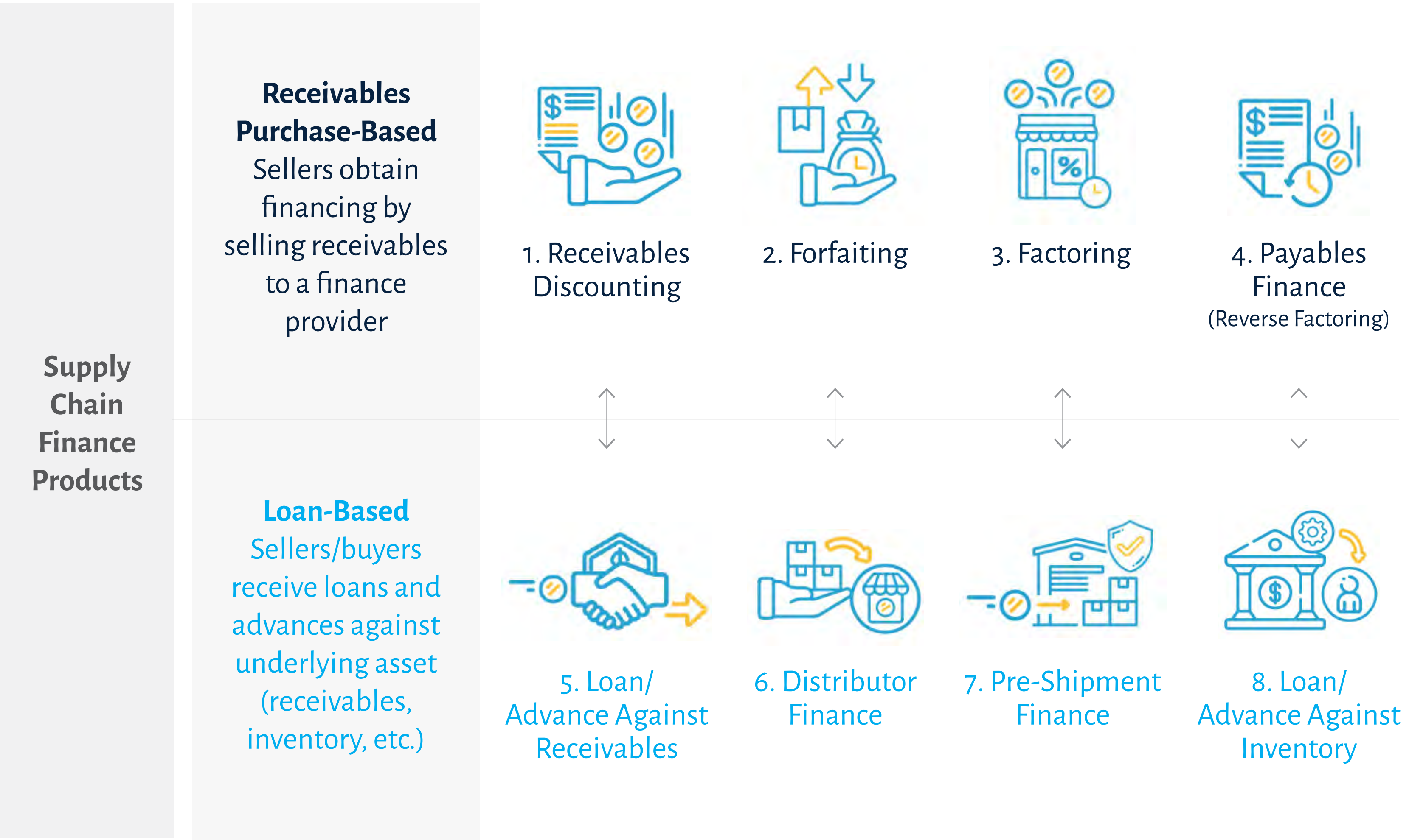


Despite their important role in the economy, MSMEs face considerable barriers to growth. Only a fraction operate as formal enterprises owing to lengthy registration processes, high-compliance costs, and a substantial tax burden. In turn, these low levels of business formality constrain access to finance, with more than 90 percent of MSMEs naming access to finance as their largest barrier to growth.[3]

Despite significant unmet demand for MSME financing – including by formal enterprises – Nigerian banks have loaned less than 1 percent of their total exposures to the segment, resulting in an MSME financing gap exceeding 65.4 trillion Nigerian naira ($156.1 billion).[4]

Scaling supply chain finance (SCF) has the potential to expand access to financing for Nigerian MSMEs. The eight principal SCF products (Figure 2) address barriers to financing in two ways: (1) leveraging MSME's relationships with anchor firms to reduce lender reliance on riskier smaller firms, and (2) facilitating bulk onboarding of small business clients, which lowers acquisition and processing costs. As a result, financial intermediaries offering SCF can more effectively and efficiently serve MSMEs.

Figure 2. The Eight Primary Supply Chain Finance Products[5]



Key Findings **Scorecard**

- Estimated market size for SCF in Nigeria is **2.7 trillion Nigerian naira ($6.6 billion).**
- Current SCF supply only meets about **24 percent of the potential market.**
- MSMEs generate more than half of the SCF opportunity, accounting for **1.4 trillion Nigerian naira ($3.5 billion).**
- Nigerian banks report offering SCF products through their working capital portfolio. Receivables discounting is the most offered SCF product with **two-thirds of banks offering it.**
- **All eight** principal SCF products are viable in Nigeria from a legal perspective.

1 The Nigeria Bureau of Statistics classifies micro enterprises as business entities with less than 10 employed individuals, and/or less than NGN 10M ($24,000) in assets.
2 Nigeria Bureau of Statistics, and the Small and Medium Enterprises Development Agency. 2019. "NBS-SMEDAN National Survey of MSMES 2017." http://smedan.gov.ng/images/NATIONAL%20SURVEY%20OF%20MICRO%20SMALL%20&%20MEDIUM%20ENTERPRISES%20(MSMES),%20%202017%201.pdf
3 The 'Other' category is inclusive of the health, education, services, telecommunications, mining & quarrying, and utilities sectors.
4 SME Finance Forum. 2018. "MSME Financing Gap Database (Excel)." International Finance Corporation. Exchange rate as of August 2022.
5 International Finance Corporation. 2014: "Supply Chain Finance Knowledge Guide." World Bank Group. SCF+Knowledge+Guide+FINAL.pdf (ifc.org)

While most Nigerian banks offer SCF, the volume of transactions remain negligible. The growth of SCF offerings will be contingent on a variety of macro, market, and firm-level factors and the interactions among these. While individual actors may be able to generate demand for or increase the supply of SCF, sustainably expanding it in Nigeria will require concerted efforts and collaboration across stakeholders.

This assessment describes the SCF ecosystem in Nigeria and identifies opportunities and barriers to scaling, in addition to highlighting actionable recommendations to drive the growth of the industry. On the demand-side, building SCF awareness and generating demand are critical. This will require broad-based communication campaigns and partnerships with the enterprise development programs of the Small and Medium Enterprise Development Agency of Nigeria (SMEDAN).

Banks should ensure their relationship managers understand and can explain their SCF offerings. They can then cross-sell SCF products to existing anchor firms and MSME clients.

The public sector can encourage banks to introduce SCF products to MSMEs by partnering with existing market linkages programs and suggesting SCF to anchor firms that need more robust and reliable domestic supplier networks to meet local content requirements.

To further drive SCF growth, the Nigerian government could build on recent improvements to enhance the enabling environment and eliminate bottlenecks. Ecosystem actors including financial institutions, regulators, and advisors could drive initiatives to generate demand for SCF.

The findings of this report are based on desk and field research conducted between November 2021 and February 2022. Field research includes key informant interviews with six banks, four non-bank financial institutions, and 10 anchor firms, as well as 60 in-depth interviews with banked MSMEs in five sectors: agriculture, construction, information and communications technology (ICT) and telecommunications, manufacturing, and wholesale and retail. Findings from the field research are complemented by secondary research of findings published by government and industry analysts.

For a detailed methodology, please see the section How the Research Was Done on page 13.

"Banks should ensure their relationship managers understand and can explain their SCF offerings.

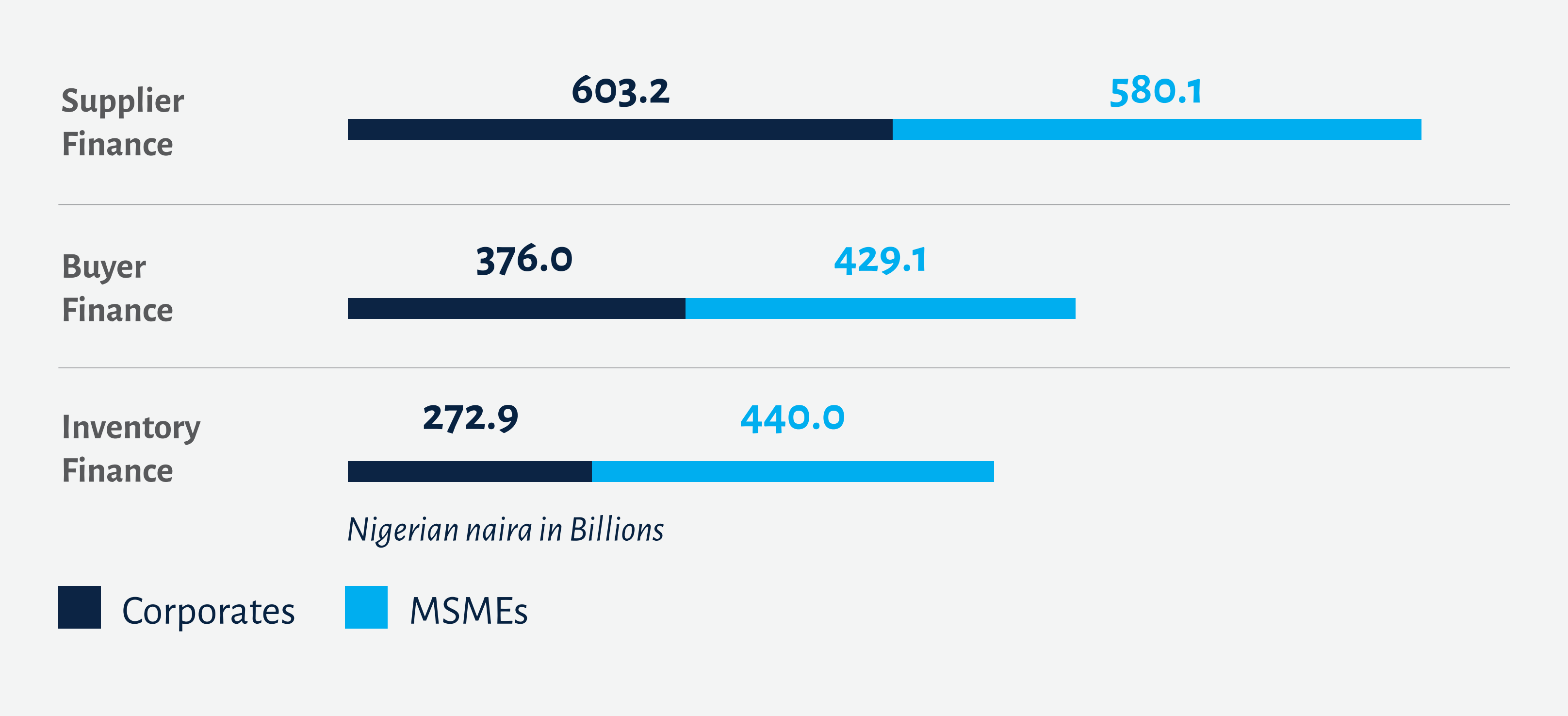
They can then cross-sell SCF products to existing anchor firms and MSME clients."

02

Market Opportunity

The estimated market for SCF in Nigeria in terms of annualized value of financeable payables, receivables, and inventory is approximately 2.7 trillion Nigerian naira ($6.6 billion).[6] The estimate includes three parts of the supply chain: (1) anchor firm procurement (supplier finance); (2) anchor firm sales (buyer finance); and (3) inventory finance.

Figure 3. Estimated Market Size for SCF in Nigeria in Terms of Annualized Value of Financeable Payables, Receivables, and Inventory



MSMEs generate more than half of the Nigerian SCF opportunity, accounting for 1.4 trillion Nigerian naira ($3.5 billion). The total potential market for SCF among MSMEs is likely larger, but the high rate of informality among MSMEs reduces the number that are eligible for formal sector financing. Increased registration of MSMEs would likely increase the SCF market.

The manufacturing sector represents 35 percent of the SCF market due to the high cost of goods sold and sales per year (21.1 trillion Nigerian naira, or $51.6 billion) which is 25 percent more than the next largest sector (agriculture).[7] Access to finance is cited as the biggest barrier to sectoral growth, particularly for MSMEs which generate 90 percent of jobs in manufacturing.[8,9]

The market for SCF is constrained by several factors, including high rates of informality among MSMEs as well as lack of digitization. Additionally, enhancements within the financial sector and the SCF ecosystem to generate demand and increase supply of SCF products, together with strengthening the enabling environment, may catalyze an SCF market as large as 11.1 trillion Nigerian naira ($27.1 billion).[10]

Figure 4. Potential Market for SCF in Nigeria

Market Sizing **Methodology**

For each component of the market, the model leverages national accounts data to estimate total cost of goods sold, sales, and inventory in the target economy. It then discounts these values based on benchmarks for the proportion of costs of goods sold, sales, and inventory typically financed via SCF. The result is then multiplied by average Days of Payables Outstanding (DPO), Days of Sales Outstanding (DSO) or Days of Inventory Outstanding (DIO) per year to determine the annualized value of financeable payables, receivables, and inventory.

A detailed methodology can be found on page 14.

6 *Full market sizing methodology can be found on page 14.*

7 *Cost of goods sold are proxied based on total inputs from sectors that are typically viable for SCF; sales are calculated based on total outputs to sectors that are viable for SCF. Inputs and outputs are calculated from an input/output table. Oil and gas are not disaggregated in the input/output tables and are therefore not included as sectors. Figures based off 2020 estimates.*

8 *Olusi, Olasupo, Denny Lewis-Bynoe, Anita Okemini, and Helen Akanisi. International Finance Corporation. 2020. "Creating Markets in Nigeria: Crowding in the Private Sector: Nigeria's Path to Faster Job Creation and Structural Transformation." Work Bank Group. https://www.ifc.org/wps/wcm/connect/673c0e3f-3e77-4ddc-923b-903c5db6af15/CPSD-Nigeria.pdf?MOD=AJPERES&CVID=nkzEpgy*

9 *Nigeria Bureau of Statistics, and the Small and Medium Enterprises Development Agency. 2019. "NBS-SMEDAN National Survey of MSMES 2017." http://smedan.gov.ng/images/NATIONAL%20SURVEY%20OF%20MICRO%20SMALL%20&%20MEDIUM%20ENTERPRISES%20(MSMES),%20%202017%201.pdf*

10 *Full market sizing methodology can be found on page 14.*

03

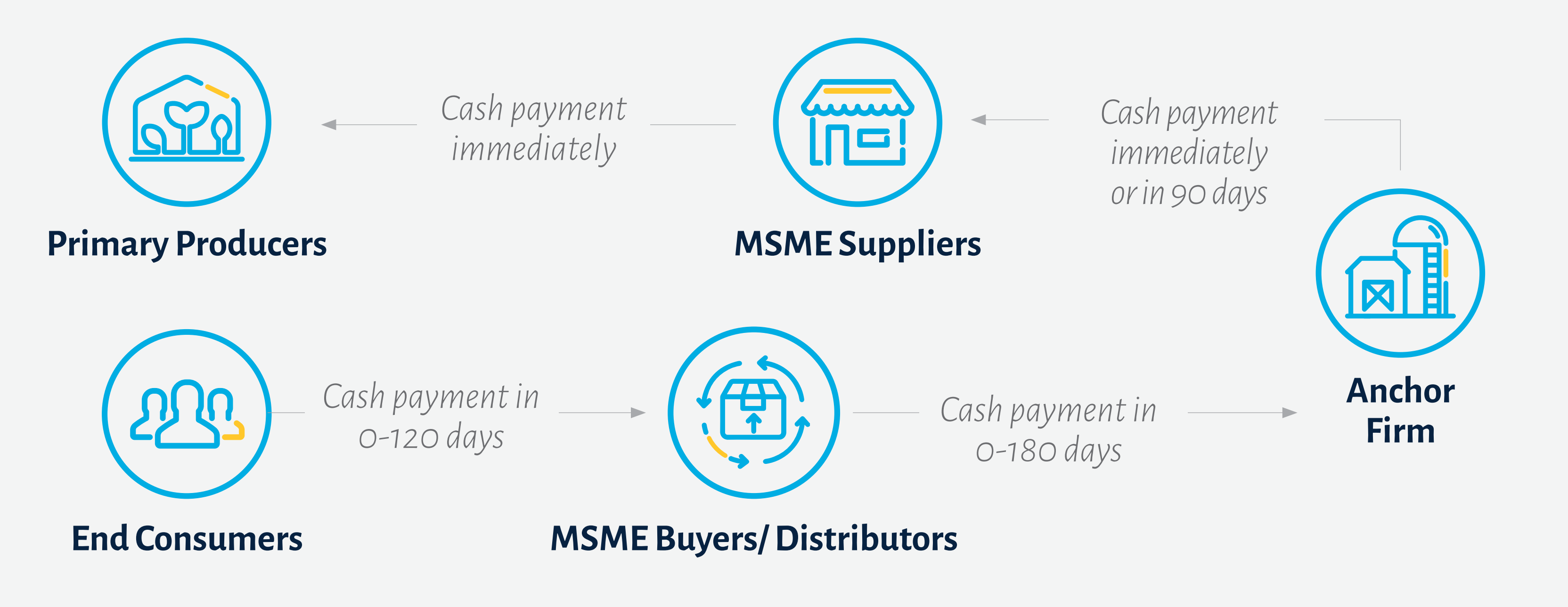
Demand for Supply Chain Finance

The size of the opportunity is driven by long payment periods across most supply chains. Extended payment periods cause delays for MSMEs and anchor firms, which face liquidity gaps and seek working capital financing that could be addressed through SCF products.

MSME Demand for Supply Chain Finance

MSMEs face liquidity gaps and limited access to working capital finance. MSME suppliers are often required to pay for their inputs immediately but may have to wait up to 90 days for their buyers to make a payment. Meanwhile, although MSME buyers pay their larger suppliers over longer periods of time – up to 180 days – they lack sufficient working capital to stock inventory before end consumers pay (figure 5). Delayed payments lead to liquidity shortfalls and hamper production, increasing MSME demand for working capital finance that could be addressed partly by SCF products.

Figure 5. Payment Periods in a Representative Nigerian Supply Chain



Most interviewed MSMEs have obtained financing from formal financial institutions, however, that financing is not sufficient to meet their liquidity needs. MSMEs frequently offer discounts to buyers to incentivize early payments, which keeps positive cashflow and prevents delays in production. They indicate financing comes with too many barriers, including high fees and unreachable collateral requirements.

Around half of the interviewed MSMEs indicated awareness of SCF products that may align with their financing needs. Whether previously aware or unaware of SCF, interviewed MSMEs understood how SCF can improve business management and enhance efficiencies. Benefits include facilitating access to inputs, scaling production, and lowering the cost of financing. Increased efficiencies would allow them to take on multiple projects simultaneously and streamline collections. Many MSMEs cited high fees as a barrier to SCF products and were also concerned with the repayment timeframes and structure. MSMEs indicated fees on SCF products may cut into their small profit margins or significantly increase their debt. Furthermore, many noted that in the end the business would still owe a debt that may be enforced by unclear terms and conditions that would prevent their business from growing.

SCF requires efficient movement of information and funds – financial technologies and automated systems including digital invoices and electronic payment systems are key. Nearly all interviewed MSMEs send digital invoices and use electronic payments for at least some transactions. However, only 3 percent of interviewed MSMEs use digital enterprise resource planning systems. Financial institutions should be cognizant of this when exploring new products and consider the most digitized sectors as entry points. They should also partner with platforms that facilitate digital invoicing, which promotes the development of formal business records for MSMEs and enables SCF at scale.

Unclear **Terms and Conditions**

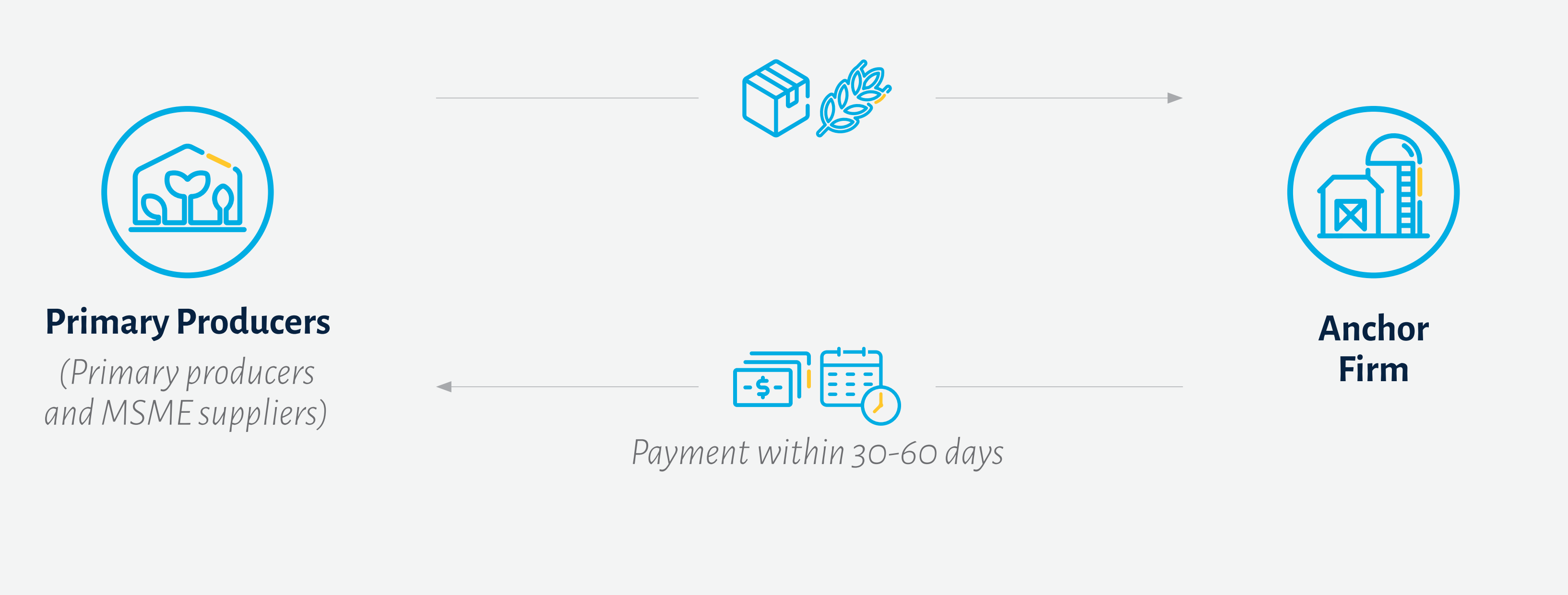
"The terms and the conditions are usually the worry. Are they friendly? Terms should be a win-win situation. No hidden charges, any and everything should be negotiable from management fee to interest to tenure."

- Medium Enterprise in the ICT/ Telecommunications Sector

Anchor Firm Demand for Supply Chain Finance

Payment terms among anchor firms are not as long as those for MSMEs. Many report paying suppliers in 30 to 60 days and receiving payment from buyers along similar timelines (figure 6). However, anchor firms note that working capital is a constraint to their business. Firms struggle to obtain foreign exchange to pay international suppliers because the central bank's strict controls limit access to foreign currency for inputs. As a heavily import-dependent nation, oil exports are a key source of foreign exchange and fluctuating oil prices increase the cost of buying inputs. SCF could reduce payment periods and enable Nigerian firms to compete with anchor firms in other countries that can more easily make payments in other currencies.

Figure 6. Illustrative Anchor Firm Supply Chain in Nigeria



On the client side, anchor firms face difficulties increasing sales because MSMEs have limited access to finance due to slim margins limiting self-funding, informal operations, and limited confidence in banks. Like MSMEs, anchor firms offer discounts on orders to increase sales volumes: 57 percent of anchor firms report offering discounts to MSMEs that cannot obtain financing. However, anchor firms do not face the same challenges in accessing financing as MSMEs.

All interviewed anchor firms rely on financial institutions for working capital and four of the 10 report having used at least one SCF product. However, anchor firms use financial institutions less often than they would like to because of a perceived lack of relevant financing products. They indicated that Nigerian financial institutions focus on loan products and invoice discounting with limited offerings beyond those. They also cited long turnaround times, an over-emphasis on anchor firm risk, and lack of support in obtaining foreign exchange as barriers to using formal financial products.

Like MSMEs, anchor firms cited ambiguous terms set by financial institutions, high fees, and a lack of tailored products as major barriers to SCF products. In some cases, these barriers may be more about perception. Financial institutions should clarify their marketing and presentation of products while demonstrating the potential growth firms can reach as an entry point to expanding SCF.

SCF relies on digital integration for efficient and automated transactions. While some MSME suppliers to anchor firms are unwilling to use digital solutions and prefer manual transactions, six out of 10 interviewed anchor firms use digital solutions. Two anchor firms using digital solutions have integrated suppliers and buyers into their systems. Integrated systems allow anchor firms to create efficient end-to-end automated processes and deploy software which can facilitate SCF. Anchor firms reported that integrated SCF systems as part of a full-service financing product would further drive digital uptake for their suppliers and increase efficiencies in the supply chain.

Limited **SCF Products**

> [Banks have a] limited [SCF product] offering apart from LPO financing and invoice discounting.

- Anchor Firm in the ICT/ Telecommunications Sector

04

Provision of Supply Chain Finance

The Nigerian financial sector includes commercial, Islamic, merchant, and microfinance banks, financing companies and fintechs that have increased private sector financing by more than 130 percent over the past decade.[11,12] However, MSMEs receive a small portion of that financing and an even smaller fraction of financing is from SCF products.

Supply Chain Finance from Commercial Banks

Total commercial bank lending (private and public sector funding) increased 20 percent in the period 2011 to 2020, most of which goes to large mining and quarrying even though the sector contributes just 6 percent of gross domestic product (GDP).[13,14,15] Less than 1 percent of commercial bank lending goes to MSMEs.[16] Surprisingly, however, the banks interviewed consistently reported disbursing larger proportions of their lending to MSMEs (5 to 20 percent) than reflected by the Central Bank of Nigeria (CBN) statistics. This may suggest that banks do not consistently serve MSMEs. Conversely, banks already serving MSMEs may be more likely to offer SCF products than their peers that target corporate clients.

Most interviewed banks focus on short-term lending and indicated upwards of 80 or 90 percent of lending is working capital financing. Banks noted that even with this high proportion of working capital financing in their portfolios, they continue to see unmet demand for more, which reinforces the findings of this assessment's MSME and anchor firm interviews. Demand is high, but there is a misalignment between understanding the demand, which products are offered and how they are marketed. A coordinated, multi-stakeholder approach is needed to facilitate additional financing.

Many banks already offer SCF products through their working capital portfolio. Receivables discounting is the most offered SCF product with two-thirds of banks offering it. Distributor finance and pre-shipment finance are the next most frequently offered products with around one-third of banks offering each of these.

Important to Nigeria's large Muslim population is that several Islamic or "non-interest banks" offer non-interest financing and some commercial banks offer non-interest financing via a separate window. Non-interest banks are categorized separately from commercial banks by the CBN. SCF products are among the non-interest financing products. Some non-interest banks offer Murabaha, a product similar to loans against inventory wherein the bank purchases goods and the client repays the bank with profit at a later date.

Commercial banks see considerable potential for expanding SCF and recognize potential benefits for themselves and larger clients. Interviewed banks report high unmet demand for working capital in the market and see SCF as a way to expand and attract corporate clients. They recognize how SCF can streamline MSME client acquisition through buyer-led models but are more focused on corporates. This approach underscores the interviewed banks' conservative approach to MSME financing and risk management. The banks largely see corporate clients as the target market, which is evident in their offering of SCF through trade finance or treasure windows.

11 *Central Bank of Nigeria. 2022. "Financial Institutions." www.cbn.gov.ng/Supervision/finstitutions.asp*
12 *Central Bank of Nigeria. 2022. "Money and Credit Statistics." www.cbn.gov.ng/rates/mnycredit.asp*
13 *International Monetary Fund. 2021. "Financial Access Survey Database." https://data.imf.org/?sk=E5DCAB7E-A5CA-4892-A6EA-598B5463A34C&sId=1460043522778*
14 *Central Bank of Nigeria. 2020. "Statistical Bulletin: Financial Sector."*
15 *National Bureau Statistics. 2021. "GDP by Sector—Q2 2021."*
16 *International Monetary Fund. 2021. "Financial Access Survey Database." https://data.imf.org/?sk=E5DCAB7E-A5CA-4892-A6EA-598B5463A34C&sId=1460043522778.*

Table 1. Commercial Outlook for Receivable Purchase Products

PRODUCT	COMMERCIAL OUTLOOK
Receivables Discounting	Receivables discounting (commonly referred to as invoice discounting) is offered by six of the interviewed banks, which report that it appeals to corporate clients that need to accelerate their cash conversion cycles as well as to MSMEs. When targeting MSMEs, commercial banks may be more comfortable with receivables discounting as repayment is tied to payment from a corporate client or buyer with a stronger credit rating. However, the Secured Transactions in Moveable Assets Act (STMAA) is ambiguous with regards to assignment of receivables, which may make anti-assignment clauses enforceable under Common Law. In turn, this heightens bank risk associated with receivables discounting, which may deter further scale.
Forfaiting	Although none of the interviewed banks cite forfaiting as a priority, early movers in this space could capture a nascent market. Letters of credit, bills of exchange, and promissory notes are widely used for import and export. Banks offering financing for payment instruments may attract anchor firms aiming to address ongoing liquidity gaps.
Factoring	One of the interviewed banks offers factoring. The involvement of NEXIM and Afrexim Bank in launching the Nigerian Factoring Working Group may drive the growth of factoring products from commercial banks and other financial institutions. However, weak contract enforcement mechanisms and ambiguity around anti-assignment clauses may continue to hamper the growth of this product.
Payables Finance / Reverse Factoring	There is significant potential for growth as interviewed banks almost universally seem to prioritize corporate clients; payables finance will enable banks to finance anchor firm procurement. In parallel, it also relies on the commercial strength of the anchor firm to mitigate risk when financing MSMEs, which may overcome highly conservative lending practices in many Nigerian banks.

Table 2. Commercial Outlook for Loan-Based Products

PRODUCT	COMMERCIAL OUTLOOK
Loan/ Advance Against Receivables	Interviewed banks indicate that there is potential to cross-sell loans or advances against receivables to existing MSME and corporate clients. However, many seem reticent to offer the product to new clients, perhaps because of the perception that it is riskier than receivables discounting products. The growth of loans or advances against receivables, therefore, will likely be somewhat tempered.
Distributor Finance	Interviewed banks identified distributor finance as a priority as it can be an important tool to unlock additional shelf space – and potentially revenue – for priority corporate clients. Uptake of distributor finance products is already considered relatively high and interviewed banks aim to continue expanding it.
Loan/ Advance Against Inventory	Interviewed banks did not clearly prioritize this product nor did they express any specific reservations around it. Concerns around the usability of the digital collateral registry may deter usage, thereby increasing risk associated with this product.
Pre-Shipment Finance	Pre-shipment finance is viewed as a vehicle for serving MSMEs and enabling them to fill orders for corporate clients. CBN has facilitated the introduction of pre-shipment finance in the agricultural sector by providing lines of credit, and a 50 percent risk-sharing facility on eligible loans, to farmers based on an existing purchase order or contract. Interviewed banks report high levels of uptake, which suggests a positive commercial outlook for pre-shipment finance products, particularly if interviewed banks believe that the risk is contained by risk sharing mechanisms.

Supply Chain Finance from Non-Bank Financial Institutions

Non-bank financial institutions (NBFIs) in Nigeria include merchant banks, financing companies, and microfinance banks.[17] NBFIs offer seven of the eight principal SCF products discussed in this report, except forfaiting. However, although each NBFI only offers a limited number of SCF products, they all see an opportunity to scale their offerings.

Five merchant banks offer highly digitized financing and payment products to targeted sectors including agriculture, fast moving consumer goods, manufacturing, and oil and gas. Many have SCF products tailored to their clients' specific needs and are enthusiastic about expanding their working capital products to current clients. They indicate that their small SCF offerings thus far are owing to the need to expand familiarity with SCF among staff as well as a requirement to invest in new customer acquisition to reach scale. Merchant banks have difficulty accessing funding themselves, citing the high cost associated with foreign currency financing. Their clients commonly seek SCF products that can address the long payment periods associated with international transactions.

The 46 financing companies in Nigeria provide an alternative to commercial banks, often reaching enterprises that are unserved or underserved by traditional banks. The financing companies primarily offer leasing and supply chain products to wholesale and retail, telecommunications, energy, and manufacturing sectors. Quick turnaround times enable them to efficiently meet client needs and position them well for reaching MSMEs that must accelerate their cash conversion cycles but cannot obtain commercial bank financing. However, required documentation remains as much of an issue for financing companies as it does for commercial banks. One company indicated rejecting 90 percent of requests for SCF because of incomplete documentation.

Another barrier to scaling SCF for financing companies is the lack of foreign currency exchange when financing international transactions.Despite limited access to commercial bank finance, informal MSMEs can access financing through microfinance banks. The CBN's microfinance policy eases lending regulations to deepen MSME finance market penetration.[18] Microfinance banks can meet informal enterprises' financing needs with inventory-based products or receivables-based products when potential clients have the requisite documentation.

Technology-based SCF solutions have excelled globally and there is an opportunity to replicate this success in Nigeria, which boasts a growing fintech industry despite low levels of mobile money penetration. Some Nigerian fintechs already offer SCF solutions to corporates and MSMEs.

An advantage of automation via an SCF platform is that it reduces transaction costs and promotes transparency. However, fintechs cite low levels of awareness of SCF in the market and limited recognition of its benefits among those businesses that are aware of it. Strikingly, some receivables and payables departments at prospective client firms actively reject fintech platforms for fear of making their jobs obsolete. Compounding this is ambiguity in the regulation of the fintech sector. Despite the challenges, some Nigerian fintechs report impressive growth, while others report that uptake and usage of their platform has not met expectations.

Spotlight on **Select Fintechs Offering SCF in Nigeria**

GetCapsa began in 2019 and offers factoring for MSMEs. Rather than buying the invoices directly, it serves as a clearing house in which corporates and individual investors buy unpaid invoices.[1]

Lidya launched in 2016 and provides loans against receivables and pre-shipment financing to suppliers who are actively leveraging its electronic invoicing platform. As of July 2021, Lidya reported disbursing approximately $10 million in financing in Nigeria.[2]

1 Okeke, Ifeoma. 2021. "Nigeria's First Digital Invoice Factoring Platform Processes N300M Payment in 30 Days." Business Day. https://businessday.ng/news/article/nigerias-first-digital-invoice-factoring-platform-processes-n300m-payment-in-30-days/

2 Kene-Okafor, Tage. 2021. "A Year after Expanding to Europe, Nigerian fintech Lidya raises $8.3M to Scale Lending Operations." Tech Crunch. https://techcrunch.com/2021/07/07/a-year-after-expanding-to-europe-nigerian-fintech-lidya-raises-8-3m-to-scale-lending-operations/

17 *For the purposes of this report, the term NBFI is used to describe financial institutions that do not meet the Central Bank of Nigeria's criteria for commercial banks, which can mobilize deposits to finance corporate, SME, and retail borrowers, in addition to providing a broad range of financing services.*

18 *Microfinance, FAQ, Central Bank of Nigeria. www.cbn.gov.ng/FAQS/FAQ.asp?category=Microfinance*

05

Enabling Environment for Supply Chain Finance

The SCF market is poised for growth following the strengthening of Nigeria's financial sector architecture and regulation by the government. In 2017, the government passed the Secured Transactions in Movable Assets Act (STMAA), which facilitates the use of moveable assets and operationalized a digital collateral registry. This enables the registration of receivables, thereby decreasing risk associated with receivables based SCF products. The government also initiated e-invoicing for all external trade in 2022, requiring all firms to submit invoices relating to imports or exports to the Authorized Dealer Banks on the Nigeria Single Window Portal – Trade Monitoring System. Additionally, the CBN further strengthened financial sector regulation by requiring regulatory approval for all unsecured lending over 3 million naira ($7,300). The required approval may catalyze the development of new secured lending products like SCF at financial institutions. Those products can in turn facilitate financial services to clients lacking traditional collateral.

Despite notable improvements, bottlenecks in the enabling environment continue to limit the growth of MSME's access to finance and SCF. Although the government recently mandated e-invoicing for external trade transactions in 2022, it does not yet offer a digital platform for invoicing domestic transactions. This disincentivizes digital invoicing, which is foundational for SCF. Likewise, the CBN levied a value-added tax of 7.5 percent on all financial transactions (an increase from 5 percent). The increased cost of financing disincentivize formal financial intermediary lending to the private sector. Furthermore, interviewed financial institutions have nearly universally indicated that lengthy and inefficient court processes fuel a preference for out-of-court settlements, which increases the risk tied to financing enterprises.

The feasibility of SCF is contingent on the legal framework governing secured transactions. The Nigerian legal framework for secured transactions largely complies with accepted international standards such as the Legislative Guide on Secured Transactions presented by the United Nations Commission on International Trade Law. Specifically, the modernized STMAA and supporting regulations facilitate the use of movable assets to credit, along with the development of a modern collateral registry. Yet, enduring shortcomings in the legal framework impede the rollout of SCF products. A lack of clarity on the governing authority of the STMAA in relation to the outright assignment of receivables may stifle the registration of such transfers in the National Collateral Registry.

Despite deficiencies in the legal framework, the eight main SCF products are viable in Nigeria from a legal perspective. However, the ambiguities in legislation may increase their cost to the detriment of MSMEs.

Figure 7. Supply Chain Finance Product Heatmap[19]

Viability of SCF Products in Nigeria vis-à-vis the Legal Framework

Key:
Green = Supporting Legal Framework
Yellow = Somewhat Supportive Legal Framework Despite Some Defects
Red = Major Obstacles in the Legal Framework

19 Adapted from IFC's legal analysis for SCF in Nigeria.

06

Recommendations

The 2.7 trillion Nigerian naira ($6.6 billion) SCF market in Nigeria can be targeted through a multi-stakeholder approach that increases knowledge of and access to SCF, and is complimented by continuous enhancements in the enabling environment.

Table 3. Recommendations to Generate Demand for SCF

FINANCIAL INDUSTRY ACTORS

CATEGORY	RECOMMENDATION	TIMELINE
Generating Demand for SCF	Financial institutions and the government can undertake broad-based communications campaigns to build awareness of SCF among target segments and underscore how SCF could facilitate business growth. MSMEs rely on a broad range of sources of information regarding their financing options, and uptake of SCF is most likely if diverse stakeholders are aware of the product. All staff should build capacity to develop demand-driven SCF products.	Short-term
Generating Demand for SCF	Financial institutions can upskill front-office staff to effectively market and cross-sell SCF to existing clients. Even well-designed products will fail to grow if potential clients cannot adequately understand the available product.	Short-term
Generating Demand for SCF	Financial institutions can partner with government to build awareness of SCF products with MSMEs engaged in SMEDAN's enterprise development programs. Industrial Development Centers in particular, create a sizable opportunity to promote SCF among enterprises in promising sectors with significant open account trade like manufacturing.	Medium-term
Enhancing Enterprise Readiness for SCF	Financial institutions can partner with digital platforms that facilitate digital invoicing to promote the development of formal business records for SCF. Digital platforms should be structured for mobile phones given the high rate of mobile phone penetration in Nigeria.	Medium-term

GOVERNMENT AND PUBLIC SECTOR ACTORS

CATEGORY	RECOMMENDATION	TIMELINE
Enhancing Enterprise Readiness for SCF	Government should accelerate the development of fintechs by facilitating systems integration that can bridge the gap between anchor firms and MSMEs. While both are relatively likely to be digitized, incompatible systems are frequently cited as a barrier to end-to-end transactions that can facilitate the use of SCF.	Long-term

Table 4. Recommendations to Enhance the Provision of SCF

FINANCIAL INDUSTRY ACTORS

CATEGORY	RECOMMENDATION	TIMELINE
Enhancing Product Design	Financial institutions can engage industry advisors to provide technical assistance to strengthen staff understanding of all aspects of SCF from marketing and product design to product monitoring to drive uptake.	Short-term
Enhancing Product Design	Financial institutions can identify the largest cost drivers for existing SCF products and assess if they can reduce costs to keep pricing below 10 percent of the value of the payable/receivable overall. This is similar to the discounts offered by most MSMEs for prompt payment and they can likely afford it despite thin margins. Higher prices, on the other hand, may make SCF inaccessible to many MSMEs.	Short-term
Enhancing Product Design	Financial institutions can design and roll-out anchor-firm led SCF models, such as payables finance, given the conservative approach to MSME lending. Once they have established proof of concept via anchor-firm led models, financial institutions could explore supplier led products.	Medium-term
Automating SCF Transactions	Financial institutions can invest in the automated systems required to disburse SCF products at scale. SCF portfolio growth will be limited if it remains predicated on manual transactions.	Medium-term
Strengthening Risk Management	Financial institutions should explore the use of credit insurance on a portfolio basis as part of their risk management process to reduce overall credit risk associated with serving MSMEs via their SCF portfolios.	Medium-term

GOVERNMENT AND PUBLIC SECTOR ACTORS

CATEGORY	RECOMMENDATION	TIMELINE
Strengthening Risk Management	Development Finance Institutions (DFIs) could explore the design of a credit guarantee or risk sharing scheme focusing on SCF. Forty percent of interviewed banks noted that a credit guarantee or risk sharing scheme would incentivize the growth of the SCF industry.	Medium-term
Expanding Access to Funding	DBN or a DFI could offer financing to Nigerian financial institutions, particularly NBFIs that cannot mobilize deposits, to enable them to offer a high-volume product line like SCF at scale. DBN or the DFIs could explore including parameters around fees or interest rate to ensure that the products are affordable to MSMEs with slim profit margins.	Medium-term
Expanding Access to Funding	Government could revisit foreign currency controls to identify opportunities to improve access to foreign currency for anchor firms engaging in international trade. In turn, anchor firms may leverage SCF for international transactions, which often have long payment terms.	Long-term
Automating SCF Transactions	Government could launch accelerators for fintechs offering back-end SCF solutions to financial intermediaries to facilitate digitization of SCF processes within banks. This will reduce the need for manual transactions and create more options for banks looking to digitize.	Long-term

Table 5. Recommendations for Enhancing the Enabling Environment for SCF

GOVERNMENT AND PUBLIC SECTOR ACTORS

CATEGORY	RECOMMENDATION	TIMELINE
Strengthening Financial Sector Regulation	Government can revise the STMAA to clarify that it governs outright assignment of receivables to offset the risk that outright transfers of receivables under SCF can be denied. If the contradiction is not addressed, then SCF will be more risky and more costly for financial institutions.	Short-term
Enhancing Financial Sector Infrastructure	Government can convene public-private dialogues with financial institutions to identify pain points associated with registering ownership rights to receivables on the collateral registry. Industry advisors can be engaged to provide technical assistance to re-design the registry.	Short-term
Enhancing Financial Sector Infrastructure	Government can assess the viability of including invoices from domestic transactions on the Authorized Dealer Banks on the Nigeria Single Window Portal – Trade Monitoring System. If this is not viable, government could design, pilot and launch an e-invoicing platform for domestic transactions to drive the development of digital receivables, thereby facilitating uptake of SCF.	Medium-term
Enhancing Financial Sector Infrastructure	Government can mandate e-invoicing for domestic transactions once an appropriate platform has been identified and/or designed and launched. Not only will domestic transactions generate the paperwork requisite for SCF, but they will also drive MSME formalization as downstream buyers are forced to formalize supply chains.	Medium-term

CATEGORY	RECOMMENDATION	TIMELINE
Reforming the Tax Code	Government can revisit the structure of the value-added tax applied to financial transactions to assess the viability of excluding transactions below a certain threshold. This will ensure that the value-added tax does not increase the cost of SCF and reduce uptake among MSMEs.	Medium-term
Enhancing Financial Sector Infrastructure	Government can strengthen enforcement mechanisms and the judicial system to mitigate financial institution risk when financing MSMEs. Financial institutions almost universally note a preference for out-of-court settlement procedures given the time and monetary costs of working via the courts.	Long-term
Reforming the Tax Code	Government can incentivize enterprises to formalize by developing a streamlined registration process and a simplified tax regime for MSMEs with revenue below a minimum threshold. Registered businesses will have access to SCF and MSME financing products from a wider range of providers.	Long-term
Reforming the Tax Code	Government should design and operationalize tiered tax rates for businesses depending on annual revenue. This will remove a key deterrent to registration for MSMEs, increase the tax base, and facilitate GDP growth.	Long-term

07

How the Research Was Done

All findings and recommendations included in this assessment have been derived from qualitative and quantitative research designed to generate insights into the dynamics within the Nigerian SCF ecosystem. The research team conducted all components of the field research and analysis between November 2021 and February 2022.

The field research of the project consisted of four principal components.

- **In-depth interviews:** Sixty in-depth interviews were conducted with MSMEs in five sectors: agriculture, construction, ICT and telecommunications, manufacturing, and wholesale and retail. Each in-depth interview explored topics including MSMEs' working capital financing needs and knowledge of SCF products in the market, in addition to conducting a concept test for SCF products to elicit feedback on the perceived benefits and concerns of participants regarding each one.

- **Key informant interviews with financial intermediaries:** The research team also conducted 10 key informant interviews with financial intermediaries, including six commercial banks and four non-bank financial institutions, to collect quantitative and qualitative data. The key informant interviews focused on each financial intermediary's current use of SCF and perspective on opportunities and barriers to scaling SCF, as well as the financial intermediary's relationships with corporate and MSME clients and strategic priorities to expand corporate and MSME lending.

- **Key informant interviews with anchor firms:** This report also incorporates findings from 10 key informant interviews with anchor firms in five sectors: agriculture, construction, ICT and telecommunications, manufacturing, and wholesale and retail. The key informant interviews focused on anchor firms' current relationships with their suppliers and/or buyers and working capital financing in their supply chains, as well as their current use of SCF and perspective on opportunities and barriers to scaling SCF.

- **Secondary research:** This report has been informed by an extensive review of publications on economic development in Nigeria, the state of MSME access to finance in Nigeria, and policies and regulations governing the financial sector, among other.

Acknowledgements

This research study was supported by the Government of Japan and the UK Foreign, Commonwealth & Development Office (FCDO). IFC commissioned Palladium to conduct the research and to author this report. At Palladium, Christine Loftus led the assessment alongside a team consisting of Shane Mulligan, Minnie Lanting, and Omar Fahmy. The authors are grateful to expert reviewers Lauren Rawlings and Dave Chalila for their valuable insights and input. The interviews with financial institutions and anchor firms in Nigeria were conducted by Mark-George Consultants, and a team from Decision Support Consultants conducted the surveys and in-depth interviews with MSMEs. On the IFC side, the study was managed by Sten te Vogt and Aksinya Sorokina, supported by Mohsin Aftab, Isis N. Isunza, and Sinja Buri. The team would like to thank colleagues Kalim M. Shah, Mohammed Aliyu and Vengai Chigudu for their input and support for this project. This report was produced by Anna Koblanck, Lisa Johnston, and Maxim Roussinov at IFC.

08

Market Sizing Methodology

The assessment included the development of a market sizing model using a data-driven approach to quantify the potential market for SCF in Nigeria. The market sizing methodology draws on macro-economic data from the Nigeria National Bureau of Statistics (NBS), as well as firm-level data from 476 firms in Africa from IFC's database of 630 firms to estimate the total market size for SCF in Nigeria.

The model calculates the potential market size for working capital solutions by assessing the market size for the following three groups of products.

- Supplier Finance
- Buyer Finance
- Inventory Finance

Market Sizing Methodology

1. **Estimate total value of cost of goods sold (COGS), sales, and inventory in the market.** Total COGS and sales in sectors conducive to SCF in Nigeria are proxied based on inputs (COGS) and outputs (sales) in the 2013 input-output tables (IO tables). The sum of total inputs for each sector was forecasted through 2020 based on the Nigeria National Bureau of Statistics GDP data on the total value of production by sector per year. The total value of inventory is then calculated based on the ratio of inventory-to-COG for corporates and MSMEs in each sector in a sample of 476 firms. The ratio is then multiplied by the total value of COGS in each sector to determine the total value of inventory.

2. **Determine the value of COGS and sales attributable to corporates and MSMEs respectively.** The share of total COGS and sales attributable to corporates and MSMEs respectively is based on MSMEs contribution to GDP in Nigeria. As MSMEs contribute 28 percent of GDP in Nigeria, it is estimated that 28 percent of COGS and sales in each sector will be generated by MSMEs. The remaining 72 percent of COGS and sales in each sector is attributed to corporates.

3. **Calculate the total value of discountable COGS in each sector. Not all COGS are discountable, particularly among corporates.** The total value of non-discountable COGS for corporates in each sector is determined based on a cross-sector benchmark (21 percent) in the IFC SCF Knowledge Guide. As such, only 79 percent of the total value of corporate COGS in each sector is considered financeable and included in the market sizing model. MSMEs, however, often have a fully discountable spend so all COGS generated by MSMEs are included in the model. This step does not apply to sales or inventory.

4. **Determine the total value of financeable COGS, sales, and inventory in each sector.** Most firms will not finance the total value of COGS, sales, and inventory using SCF given fees and other costs involved. Per the IFC SCF Knowledge Guide, firms will finance an average of 71 percent of COGS and inventory via SCF in a well-developed SCF market, whereas they will only finance 60 percent of the sale in well-developed markets. These benchmarks are derived from IFC assessments of the share of COGS, sales, and inventory financed via SCF in 20 robust SCF programs worldwide. As such, only 71 percent of the value of discountable COGS among corporates and MSMEs, 60 percent of sales among corporates and MSMEs, and 71 percent of inventory among corporates and MSMEs is considered financeable.

   The benchmark for the share of discountable COGS, sales, and inventory financeable via SCF for corporates is then further discounted to account for lower levels of financial inclusion in Nigeria and some in-depth interview participants' reticence to engage with banks.

It is discounted by the ratio of the percentage of large firms in Nigeria that have a loan or a line of credit from a bank (15.4 percent) compared with the average percentage of corporates in 29 high-income countries (59.3 percent) per the World Bank Enterprise surveys. This ratio is 26 percent. As such, the value of discountable COGS, sales, and inventory generated by corporates is multiplied by 26 percent to determine the total value of financeable discountable COGS, sales, and inventory among corporates in each sector. The product is then multiplied by the total discountable COGS, sales, and inventory for corporates in the sector to determine financeable COGS, sales, and inventory among corporates.

This process is repeated to determine financeable COGS, sales, and inventory among MSMEs in each sector. Rather than applying the ratio of large firms in Nigeria that have a loan or a line of credit from a bank compared with the average percentage of corporates in 29 high-income countries, it applies the ratio of the percentage MSMEs with a loan or line of credit in Nigeria (11.1 percent) compared with the average percentage of MSMEs with a loan or line of credit in 29 high-income countries (48.1 percent) per the World Bank Enterprise surveys. This ratio is 23 percent. The product is then multiplied by the total discountable COGS, sales, and inventory for MSMEs in the sector to determine financeable COGS, sales, and inventory among MSMEs.

5. **Calculate the average days payables outstanding (DPO), days sales outstanding (DSO), and days inventory outstanding (DIO).** Given the lack of firm-level financial data available in Nigeria, the model relies on a database with anonymized financial data from 630 firms to calculate DPO.

   1. First, the database is segmented by sector and enterprise size (as determined by the IFC definition for micro, small, medium, and large enterprises).

   2. All firms that cannot be categorized or are engaged in business activities that are not conducive to SCF or have financial ratios that do not align with normal business behavior are removed from the sample, leaving 476 firms. Once the dataset has been organized, the model calculates average DPO, DSO, and DIO for corporates and MSMEs in each sector per the following formulas:

      - DPO = Average Accounts Payable 2020 / (COGS/365).
      - DSO = Average Accounts Receivable 2020 / (Sales/365).
      - DIO = Average Inventory 2020 / (COGS/365).

   Average DPO, DSO, and DIO for some firms exceeded 150 days. Given that financial institutions typically would not apply a financing period beyond 120 to 150 days, the model capped DPO, DSO, and DIO at 150 days. If the average DPO exceeded 150 days, the value was reduced to 150 days.

   The model then calculates a weighted average for DPO, DSO, and DIO among corporates and MSMEs in each sector using the firm-level DPO, DSO, and DIO. The sector average among corporates and MSMEs respectively is applied to all financeable COGS in the model in a given sector.

6. **Estimate the annualized value of outstanding payables, receivables, and inventory among corporates and MSME respectively.** The total value of corporate COGS, sales, and inventory financeable via SCF is multiplied by the average corporate DPO, DSO, and DIO in each sector and divided by 365 to determine the total annualized value of financeable payables, receivables, and inventory outstanding for corporates. This process is then repeated for MSMEs.

7. **Determine the total annualized value of outstanding payables, receivables, and inventory in the market.** The model then sums the total outstanding payables among corporates and MSMEs to determine the total market size for supplier finance in Nigeria. It then repeats this step leveraging total receivables and inventory to determine the total market for buyer finance (outstanding receivables) and inventory finance (outstanding inventory).

8. **Calculate the total market size for SCF.** The total value of supplier, buyer and inventory finance are summed to determine the total market for SCF. The total value of financeable payables outstanding is used to proxy the market size for supplier finance.

Key Assumptions in the **Market Sizing Model**

- Annual growth in inputs and outputs by sector can be estimated by the percentage increase in production by sector.
- The percentage of COGS, sales, and inventory financed in Nigeria will be less than global benchmarks (71 percent for supplier finance and inventory finance and 60 percent for buyer finance) found in the IFC Supply Chain Finance Knowledge Guide due to low levels of financial inclusion in Nigeria and many in-depth interview respondents' reticence to engage with banks.
- Financial institutions typically will not provide financing for more than 120-150 days. As such, all DPO, DSO, and DIOs in excess of 150 days were reduced to 150 days.
- Corporates and MSMEs listed in database of firm-level financials have relatively similar payment structures and business dynamics as the universe of corporates and MSMEs in Nigeria.

Glossary

MSME, IFC DEFINITION	
Microenterprise	An enterprise qualifies as a micro, small or medium enterprise if it meets two out of three criteria of the IFC MSME Definition (employees, assets, and sales). A microenterprise has < 10 employees; < \$100,000 in assets; and <\$100,000 in annual sales.
Small Enterprise	An enterprise qualifies as a micro, small or medium enterprise if it meets two out of three criteria of the IFC MSME Definition (employees, assets, and sales). A small enterprise has 1-49 employees; \$100,000-3 million in assets; and \$100,000 – 3 million in annual sales.
Medium Enterprise	An enterprise qualifies as a micro, small or medium enterprise if it meets two out of three criteria of the IFC MSME Definition (employees, assets, and sales). A medium enterprise has 50-300 employees; \$3-15 million in assets; and \$3 – 15 million in annual sales.
WOMEN-LED ENTERPRISE	
Women-led Enterprise	An enterprise qualifies as a woman-owned enterprise if it meets the following criteria: (a) ≥ 51 percent owned by woman/women; OR (b) ≥ 20 percent owned by woman/women; AND (i) has ≥ 1 woman as CEO/COO/President/Vice President; AND (ii) has ≥ 30 percent of the board of directors composed of women, where a board exists.
SUPPLY CHAIN FINANCE PRODUCTS	
RECEIVABLES PURCHASE PRODUCTS	
Receivables Discounting	Receivables discounting is a form of receivables purchase, flexibly applied, in which sellers of goods and services sell individual or multiple receivables (represented by outstanding invoices) to a finance provider at a discount.
Forfaiting	Forfaiting is a form of receivables purchase, consisting of the without recourse purchase of future payment obligations represented by financial instruments or payment obligations (normally in negotiable or transferable form), at a discount or face value in return for a financing charge.
Factoring	Factoring is a form of receivables purchase, in which sellers of goods and services sell their receivables (represented by outstanding invoices) at a discount to a finance provider (commonly known as the 'factor'). A key differentiator of factoring is that typically the finance provider becomes responsible for managing the debtor portfolio and collecting the payment of the underlying receivables.
Payables Finance / Reverse Factoring	Payables finance is provided through a buyer-led program within which sellers in the buyer's supply chain can access finance through receivables purchase. The technique provides a seller of goods or services with the option of receiving the discounted value of receivables (represented by outstanding invoices) before their actual due date and typically at a financing cost aligned with the credit risk of the buyer. The payable is settled by the buyer at the due date.
LOAN-BASED PRODUCTS	
Loan or Advance against Receivables	Loan or advance against receivables is financing made available to a party involved in a supply chain on the expectation of repayment from funds generated from current or future trade receivables and is usually made against the security of such receivables but may be unsecured.
Distributor Finance	Distributor finance is the provision of financing for a distributor of a large manufacturer to cover the holding of goods for re-sale and to bridge the liquidity gap until the receipt of funds from receivables following the sale of goods to a retailer or end-customer. Goods in inventory can serve as collateral.
Loan or Advance Against Inventory	Loan or advance against inventory is financing provided to a buyer or seller involved in a supply chain for the holding or warehousing of goods (either pre-sold, un-sold, or hedged) and over which the finance provider usually takes a security interest or assignment of rights and exercises a measure of control.
Pre-Shipment Finance	Pre-shipment finance is a loan provided by a finance provider to a seller of goods and/or services for the sourcing, manufacture or conversion of raw materials or semi-finished goods into finished goods and/or services, which are then delivered to a buyer. A purchase order from an acceptable buyer, or a documentary or standby letter of credit or bank payment obligation, issued on behalf of the buyer, in favor of the seller is often a key ingredient in motivating the finance in addition to the ability of the seller to perform under the contract with the buyer.

Abbreviations

	DEFINITION
CBN	Central Bank of Nigeria
COGS	Cost of Goods Sold
DBN	Development Bank of Nigeria
DFI	Development Finance Institution
DIO	Days Inventory Outstanding
DPO	Days Payables Outstanding
DSO	Days Sales Outstanding
Fintech	Financial Technology
GDP	Gross Domestic Product
ICT	Information and Communications Technology
IFC	International Finance Corporation
MSME	Micro, Small, and Medium Enterprise
NBFI	Non-bank financial institution
NBS	National Bureau of Statistics for Nigeria
SCF	Supply Chain Finance
STMAA	Secured Transactions in Moveable Assets Act
SMEDAN	Small and Medium Enterprise Development Agency of Nigeria

Supply Chain Finance Market Assessment

This report is part of a series of market assessments on supply chain finance produced by IFC's Financial Institutions Group Advisory Africa to highlight opportunities and challenges in the provision of supply chain finance in a number of African markets.

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