Supply Chain Finance Knowledge Guide

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Foreword

"The International Finance Corporation, a member of the World Bank Group, is committed to supporting Micro, Small and Medium Enterprises (MSME). Through IFC's Creating Markets Initiatives, we help mobilize private and public sector stakeholders to expand financial inclusion for MSMEs, who are critical for the economic and social development of emerging markets. These businesses generate income and create the majority of jobs—between 70 and 95 percent of new employment opportunities—in emerging economies. MSMEs are more likely to generate jobs, and at a faster pace, when they have access to finance which is severely constrained with an estimated access to finance-gap estimated at US$4.7 trillion globally, as estimated by IFC MSME Finance Gap study launched in 2018.

When it comes to trade finance offered by financial institutions, more than 80% of trade is secured by some form of collateral, credit, guarantee or insurance. Subsequent to the financial crisis, gaps in trade finance have widened further. Globally the gap has been estimated at nearly US$1.5 trillion - and the MSMEs are affected the most, especially the traders. More than 50% of MSME requests for trade finance are rejected by banks across emerging markets, and in more than 70% of them don't have access to alternative financing. This entails that large proportion of MSMEs remain excluded from the trading system inhibiting their growth, especially beyond borders. While delivering trade finance solutions, 85% of the trade finance being provided by banks is traditional trade finance and supply chain finance only constituting 15%. Having said that SCF assets have grown over 17% during last 7-8 years but the proportion going towards to MSMEs finance have increased only marginally.

In IFC's efforts to help financial institutions cater to this market needs, USD$ 500 million Global Trade and Supply Chain Finance program was initially launched in 2010 aimed at providing affordable short-term financing to suppliers in emerging markets. Subsequently, in 2014 IFC launched its Supply Chain Finance Advisory program aimed at providing technical assistance to financial institutions for building their internal capacities in the areas of business model, product, sales, onboarding, technology, credit, transactional process and capacity building of MSMEs within domestic and regional value chains of large local companies. Through SCF diagnostics and advisory services to financial intuitions around the world it has increasingly become clear to us that financial institutions in developing countries lack capacity and most markets do not have the requisite enabling environment for SCF.

Henceforth, IFC undertook to prepare this first of its kind "Supply Chain Finance Knowledge Guide" with a focus on MSMEs. While the report captures global trends, benchmarks, best practices and lessons learnt, Pakistan has been used as a case study owing to the significant SCF initiatives underway by IFC and IBRD teams and with the country potential of US$ 18-20 billion in SCF. The report also suggests strategies for financial institutions that are either considering to design or are looking to scale up their SCF propositions.

We feel Supply chain finance can significantly contribute towards solving MSME access to finance problem while creating efficiencies for the real sector corporations. To realize the full potential of the opportunity, "a coordinated approach would be needed under a 5-corner model where regulators, financial institutions, corporations, MSMEs and SCF technology platforms need to collaborate and make concerted and result oriented efforts. IFC is committed to Creating SCF Markets and engaging all stakeholders to ensure Supply Chain Finance for MSMEs becomes an impactful solution to support the growth of MSMEs across emerging markets."

Qamar Saleem

Preface

The objective of the Supply Chain Finance Knowledge Guide is to share IFC's experience and knowledge in providing access to finance for Small and Medium Sized Enterprises (SMEs) through leveraging Supply Chains. This knowledge guide is primarily meant to present banks and other SCF practitioners with both an overview of international best practices in SCF, and also illustrate a robust Methodology to estimate the SCF Market Opportunity in a country. Pakistan has been used as a case study to apply the Market Sizing methodology as well as to incorporate lessons learned from various SME and SCF engagements carried out by IFC in the country.

The knowledge guide also helps set out foundational benchmarks and suggests strategies for financial institutions that are either considering entering or are looking to scale up their SCF and SME portfolios. This will also serve as a useful resource for other related stakeholders such as corporations, suppliers, distributors, aggregators, government agencies, policy makers, regulators, non-governmental organizations (NGOs), developmental institutions, technology platform providers, research bodies and SCF technical think tank.

The SCF Knowledge Guide has drawn widely from existing research and literature, as well as from primary market research and surveys, face to face interviews with Global Transaction banking / SCF banking business leaders, CFOs of corporations, supply chain/procurement/ sales managers, SCF experts and practitioners worldwide, including Pakistan. This guide has also leveraged from IFC's 'Supply Chain Finance Competency Assessment' tool and various other knowledge collateral developed as part of its SME Banking Advisory Services to banks. In addition, several examples from Global Banks are also highlighted in the report, which serve to highlight good practice and to help the reader learn from practical experiences. Global financial Institutions featured in this publication include Citibank, Standard Chartered, HSBC, Deutsche Bank, JP Morgan. Examples from Fintechs and SCF Technology providers are also included in the publication such as Puratos, Orbian, Luxottica, Prime Revenue, GT Nexus, Taulia and C2FO. Hence, the Guide seeks to support financial institutions in making informed choices by sharing with them the challenges, opportunities, and effective practices in the area of SCF from across the globe with a special focus on emerging economies and domestic value chains.

The Guide will try to answer some of the following questions:

- How does SCF offer an alternate form of financing for SMEs?
- Is the SCF market an attractive value proposition for the banks, corporations and SMEs in terms of yields and risk management issues?
- What are the relevant regulatory and legal challenges to consider?
- How do banks overcome the challenges and capture the opportunities offered by the SME segment, by offering SCF?
- How have banks successfully established and expanded their SCF operations in the developed and the developing economies?

Hence in summary, the Guide will provide an overview of the current state of SCF, and then illustrate the solutions that banks can deploy to unlock the potential opportunity. In addition, this publication can also help financial institutions across emerging markets in building business case for investing in SCF propositions through tested market sizing tools and linking financial and market benefits. Hence, this can help mobilize the relevant stakeholders in actioning a creating markets agenda and addressing access to finance challenges for SMEs."

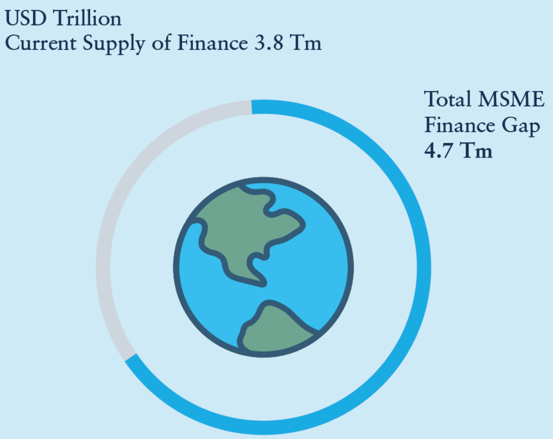
Acknowledgements

The IFC's Global SCF Program would like to acknowledge our donor partners, the Government of United Kingdom (UK AID – DFID) for their contribution and partnership in the program.

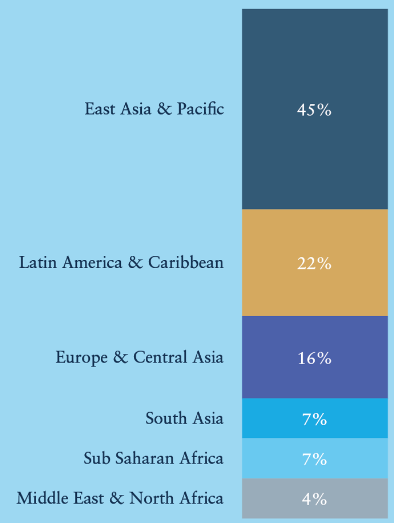
IFC has developed this SCF Knowledge Guide under the supervision of a team led by Akbar Zaman Khan with the support from Mohsin Aftab and Usama Ali Syed. Overall, the technical oversight was provided by Qamar Saleem, IFC's Global SME Banking lead. The team would like to acknowledge the contributions of the IFC peer reviewers, Martin Hommes, Huma Khalid, Anushe Khan and Aksinya Sorokina. IFC would also like to thank McKinsey & Co, led by Mr. Jawad Khan, and supported by Mr. Ganaka Herath, Mr. Nunzio Digiacomo, Mr. George Haimari, Mr. Lawrence Webb, Mr. Ali Hassan & Mr. Talha Bin Asad, for supporting IFC in developing the report.

Global MSME credit gap estimated to be **~USD 4.7 trillion**, with East Asia & Pacific accounting for almost half

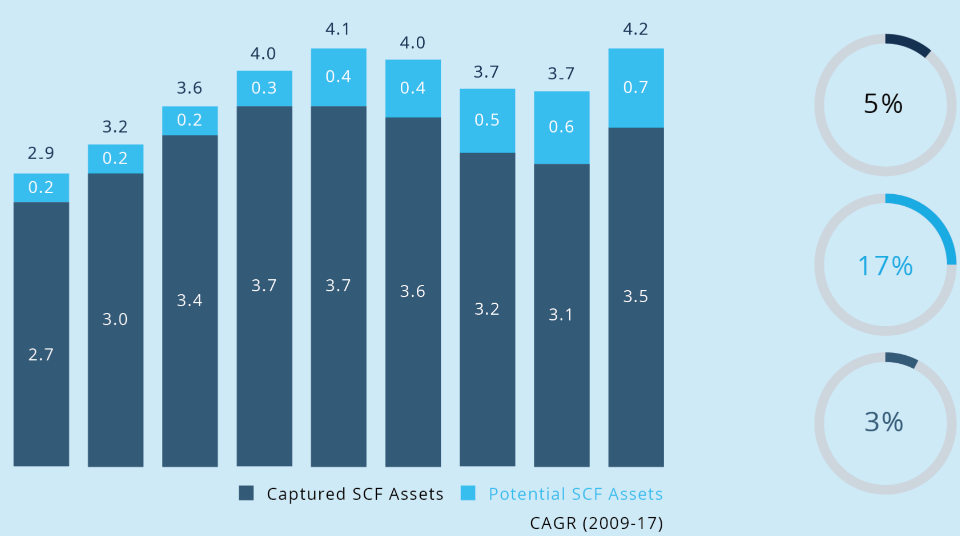
Global MSME Finance gap, 2017



MSME Finance gap by Region, 2017



Global SCF assets have grown steadily at ~5% p.a over the last few years while captured assets have grown at ~17%



Executive summary

Supply Chain Financing (SCF) is becoming an increasingly common vertical within the banking industry. The global credit crisis of 2008 forced trade finance seekers to look for alternatives as liquidity in supply chains became a major concern for businesses. This spurred an increased demand for supply chain financing as businesses worked to maintain liquidity and their competitive edge. This report describes the general ecosystem for SCF, summarizes the best practices that financial institutions should adopt as they seek to enter the supply chain financing market and takes and attempt at quantifying the potential SCF market in Pakistan.

SCF products can partially bridge the ~ USD 4.7 trillion MSME credit gap through instantaneous finance relying on Supply Chain relationships

SCF provides working capital efficiency and cash conversion cycle benefits to MSMEs and corporations. It also provides an opportunity to banks to develop long-term relationships and cross-sell products. SCF includes a broad set of products that can be categorized into two categories: (1) receivables purchase-based SCF products and (2) loan-based SCF products.

Currently, the global MSME credit gap is ~ USD 4.7 trillion, with MSMEs highlighting inaccessibility to finance as the main inhibitor of growth. By leveraging the credit rating and commercial strength of large entities, SCF can provide access to competitive financing solutions for these MSMEs.

SCF assets grew at 17% between 2009 to 2017 driven by five key trends

From 2009 to 2017, the overall SCF market grew steadily at around 5% with captured SCF assets growing rapidly at 17%. We believe there are five global trends driving the growth: (1) evolution of global supply chains with an increasing number of suppliers and transactions, (2) improvement of technology allowing automation of the procure-to-pay and order-to-cash cycle and Fintech disruptions providing increased access to finance, (3) participation of facilitators in shaping the SCF market (e.g., industry associations that drive investment and engagement with key stakeholders, and credit insurance companies that allow SCF providers to transfer credit risk and outsource credit processes), (4) favourable global regulations such as Basel III that largely favour supply chain financing due to reduced counterparty risk, formalisation of definitions and recognition by international bodies, such as ICC (5) scarcity of capital and increasing credit arbitrage since the credit crunch, creating an incentive to explore SCF programs.

Financial institutions can follow global best practices to enter the SCF space

Best-in-class SCF programs segment clients at the start and tailor SCF product offerings to individual needs. In terms of outreach, clients are built in a top-down manner, starting with one or two large anchors from the existing client base and expanding into their upstream and downstream ecosystem for potential clients.

Financial institutions then lead anchor-client outreach with a focused marketing message catering to the needs of each segment (e.g., MNC/large corporates vs SMEs). Further, an RM-led coverage model is employed, with product specialist support.

After getting anchors on board, the next phase involves onboarding strategic supply chain partners. Financial institutions identify and prioritize these partners and enlist the help of anchor clients in initial outreach and education. It is important to ensure a transparent and hassle-free spoke enrolment to optimize onboarding.

The sales team in SCF programs consists of product specialists, with RMs managing client relationships and assisting with spoke onboarding. To incentivize the sales team, financial institutions link RM and product-specialist compensation to four major KPIs—business origination, program implementation, program utilization and client impact. Revenue incentives for RMs and product specialists are based on booked or mirror/shadow accounting.

Further, three key risk-mitigation measures are employed in SCF programs—robust commercial and credit risk assessment of anchor, reliable supply chain partner segmentation and risk acceptance criteria and stringent monitoring to mitigate the unique risks associated with SCF, such as performance risk, servicing risk, fraud etc.

Best-in-class financial institutions also deploy robust IT platforms with key attributes: order and document management, e-invoicing, payment execution and tracking, and ERP integration. For financial institutions in emerging markets with a limited geographic footprint, outsourcing/white labelling provides a hassle-free and efficient means of deploying an SCF IT platform.

Based on best practices, financial institutions in Pakistan can unlock potential in the local market to launch lucrative supply chain programs

Currently, the local SCF market in Pakistan has a potential of ~ USD 18 - 20 billion of which 60% comes from reverse factoring while 40% made up from other receivables and loan-based products. Financial institutions can take advantage of this opportunity and unlock potential in the local market by launching lucrative supply chain programs.

Chapter 1 Introduction to the Supply Chain Finance ecosystem

Supply Chain Finance (SCF) includes a broad set of products with unique features. These products provide benefits to SMEs, corporates and financial institutions. Specifically, for SMEs, SCF helps overcome their biggest inhibitor to growth—access to finance. In most cases, SCF provides access to competitive financing to SMEs based on the financial and commercial strength of large anchors.

The overall SCF market has grown steadily at around 5% from 2009 to 2017. Five global trends are driving this SCF ecosystem evolution: 1) evolving global supply chains, 2) technology improvements and FinTech disruption, 3) facilitator participation, including industry associations and credit insurance companies, 4) favourable global regulations such as Basel III that largely favour supply chain financing due to reduced counterparty risk, formalisation of definitions and recognition by international bodies, 5) scarcity and cost of capital.

1.1 SCF products and benefits

Leading industry associations globally came together in the Global Supply Chain Finance Forum to develop standard market definitions for SCF to clear any uncertainty in terminology for technical and non-technical discussions on SCF.

As shown in Exhibit 1, SCF consists of two major categories:

- **Receivable purchase products:** Banks finance sellers through purchasing a part or the entire receivable from them and take these receivables off the balance sheet of the seller. The bank gains ownership over the receivable and holds the title rights. Against this purchase, the seller receives an advance payment with a certain margin for the bank.

- **Loan based products:** Banks finance sellers/buyers through providing loans against receivables, PO, inventory etc. In this category, the receivable stays on the balance sheet of the seller, with the underlying asset being used as a collateral

The Global SCF Forum has divided these two major categories of SCF into 8 products with a diverse set of characteristics.

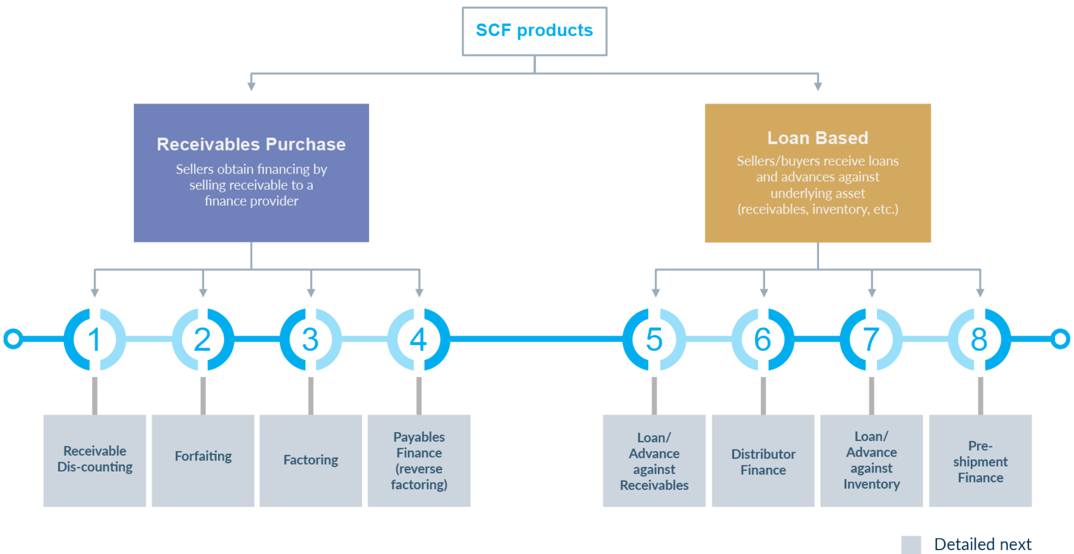
1. Receivables discounting

Definition: A financial institution purchases individual or multiple receivables from a seller of goods and services at a discount. At maturity, the buyer pays back the receivable proceeds to the financial institution.

Target client for financial institution: Mostly large seller

Distinctive features:

- Purchase of receivable either with recourse or without recourse
- Discount agreement need not be disclosed to the buyer
- Lower total fees compared to factoring, as receivable discounting products do not usually have a sign-up fee that factoring products have



"Global Supply Chain Finance Forum is an initiative of sponsoring industry associations acilitated by the International Chamber of Commerce (ICC) Banking Commission to develop, publish and champion a set of commonly agreed standard market definitions for SCF, and SCF related techniques."

SOURCE: Global Supply Chain Finance Forum

Exhibit 1: Product Categories
Scf Portfolio Consists Of 8 Products Across Receivables Purchase And Loan-based Categories

2. Forfaiting

Definition: Purchase of medium- to long-term future payment obligations represented by financial instruments (e.g., letter of credit, promissory note, etc.),by a financial institution at a discount in return for a financing charge. At maturity, the buyer pays the face value to the financial institution.

Target client for financial institution: SME seller

Distinctive features:

- Only applies to international transactions
- Purchase of receivables typically without recourse
- Requires an underlying financial instrument (e.g., letter of credit)
- Up to 100% of the face value of the financial instrument is typically paid upfront

3. Factoring

Definition: A financial institution purchases individual or multiple receivables from a seller of goods and services at a discount. The financial institution also takes responsibility for managing the debtor portfolio and collecting the receivables. At maturity, the buyer pays the invoice proceeds to the financial institution.

Target client for financial institution: SME seller

Distinctive features:

- Purchase of receivable either with recourse or without recourse
- Unlike receivables discounting, the factoring agreement must be disclosed to the buyer as the financial institution will need to engage directly with buyers for collection
- Higher total fees as compared to receivables discounting with financing rate, service charge, signup fee and other charges
- Up to 80% of the face value of the receivable is typically paid upfront

4. Payables finance (reverse factoring)

Definition: A buyer-led program in which sellers sell their receivables to the financial institution. The financial institution agrees to finance these non-investment grade sellers based on the credit-worthiness of the buyer. The buyer pays the principal amount owed at the invoice maturity/due date to the financial institution.

Target client for financial institution: Large buyer

Distinctive features:

- The program is initiated by the buyer, unlike other receivables discounting techniques
- Unconditional approval of the accounts pay able is required for payment by the buyer (**without recourse**)

5. Loan/advance against receivables

Definition: Loan to a seller that is repaid through funds generated from current or future receivables. This transaction is typically made against the security of such receivables, but in some cases, can be unsecured. At maturity, the seller repays the financial institution.

Target client for financial institution: SME

Distinctive features:

- It is a secured loan collateralized by current or future receivables
- It is extended to sellers with a strong credit rating

It is usually extended against unapproved invoices by banks with recourse to the supplier. Banks prefer not to purchase these unapproved invoices since there is high performance, fraud and dilution risk

6. Distributor finance

Definition: Financing for a distributor of a large manufacturer to provide funds to hold goods for sale and to reduce the liquidity gap. The funding is usually provided through direct financing by means of loans and is subject to annual review. At maturity, the distributor repays the financial institution.

Target client for financial institution: Large seller

Distinctive features:

- The anchor party must have a degree of exposure to motivate successful conduct of the distributor's contractual arrangements
- An agreement between the anchor party and the financial institution is required to ensure the loan is paid back by the distributor
- Financing is provided without recourse, with the financial institutions taking on sole responsibility of collection

7. Loan/advance against inventory

Definition: Financing provided to a buyer or seller holding inventory (either pre-sold, un-sold, or hedged). Typically, the financial institution takes a rights or security control over the underlying asset. The proceeds of sales are used for repayment to the financial institution.

Target client for financial institution: Large buyer/seller

Distinctive features:

- The financial institution usually takes a security interest or assignment of rights and exercises a measure of control on the goods
- Financing is provided with recourse to the seller/buyer

8. Pre-shipment finance

Definition: A loan provided to a seller by a financial institution for sourcing, manufacturing or conversion of semi-finished goods into finished goods, which are then delivered to a buyer. The financial institution usually provisions a percentage of value of the order as advance, with disbursement in stages as the order is fulfilled. At maturity, the seller repays the financial institution.

Target client for financial institution: Large seller and SME seller in anchor led PO finance

Distinctive features:

- Requires a purchase order, demand forecast or underlying commercial contract against which finances are provided
- Financing is provided in stages as the order is fulfilled and with recourse

Example of a large corporation adopting Supply Chain Financing

Context:

Siemens is an international group with 100 subsidiaries across 115 countries. Its product range spans power and gas, turbines, compressors, renewable energy and building technologies. Siemens' sourcing is concentrated largely in just two countries, Germany and the US (account for ~50% of procurement volume). Siemens launched a comprehensive supply chain finance program offering reverse factoring and distributor financing to its suppliers and distributors respectively

Approach:

Siemens undertook a partnership with Siemens Financial Services and used the Orbian platform to launch reverse factoring and distributor financing program. The group started with reverse factoring for tier 1 suppliers in 2008, and then later expanded it to reverse factoring for tier 2 suppliers and then towards distributors as well.

One of the key success factors of the SCF program was the speed of invoice approval. The company approves – or rejects – invoices within an average of just eight days, using platform pioneer Orbian for the electronic transmission of payment instructions. Another success factor was that the supplier never has recourse to Orbian, so the relationship is strictly between the supplier and Siemens

1.1.1 SCF risks

The degree of risk varies across the supply chain cycle; each event and process in the supply chain varies in terms of the level of visibility on the transaction and the control on cashflows. The ability of banks to underwrite financing of the supply chain cycle largely depends on the information and visibility they receive between trading parties and their respective obligations. SCF underwriting is typically based on the financial supply chain and its cash flows as opposed to securing mortgages.

As a result, understanding of processes and time cycles in the physical supply chain has great significance to establish an SCF related risk profile. Typically, we believe SCF risks have the following features:

- Financing is offered based on triggers in physical supply chain, starting from purchase order, inventory conversion, approved payables and capturing purchase cycle of distributors in the network
- Risk evaluation of entities in the supply chain need to be undertaken on their intrinsic risk profile in the physical supply chain process
- Policy should be developed to provide entities involved in SCF with direction on the credit underwriting process, monitoring and the implementation of an SCF specific Early Warning Signals (EWS)

In addition, the anchor led approach to credit underwriting allows banks to assess the financial and commercial health of the anchor and its supply chain network. At the same time, banks leverage reliable information sources to ascertain the volumes, tenors and magnitude of the risk associated with each SCF proposition. The key characteristics of SCF include:

- Open account trading focused on transactions as opposed to collateral
- Relationship between a buyer and a seller in volving their sales and purchases
- Revolving, uncommitted & short duration grants that can be priced dynamically (through cycle of events)

Risk for banks declines as we progress down the SCF value chain

Risk for banks

Stages	**Purchase order** Bank provides loan to supplier against a PO	**Unapproved invoices** Bank provides loan to supplier against an	**Approved invoices** Bank purchases invoice from the supplier and provides financing
Risks	• Two types of risks are present: > **Performance risk of supplier** > **Default risk of supplier** • **Recourse** is only to supplier	• **Lower fraud and performance risk** • Recourse typically still **only to supplier, as invoices have not been approved** by buyer	• Fraud and performance **risks are lower** as risk shifts to credit-worthy buyer • Recourse can be **against either supplier or buyer**
Typical % of invoice lent by bank	30-40%	50-60%	100% (less discount value)

Exhibit 2: Risk spectrum for bank across the different stages of the transaction

- Unsecured loans accompanied by real time data flows and control on transactions
- Construction of real-time credit models that feed off actual supply chain performance data

For financial institutions, risk associated with SCF varies across the different stages of a transaction (Exhibit 2).

- **Purchase order:** This risk is highest for the bank in financing against POs as the bank has recourse to the supplier and the goods have not been delivered yet. There are 2 types of risks that the bank faces in this case i.e. performance risk (risk that the supplier may not be able to deliver the right quantity and/or quality of goods) and fraud risk (risk that the supplier will not make the payment as the deal is not genuine). All these risks are high at this stage. Due to this increased risk, the bank usually lends 30-40% of the total PO amount.

- **Unapproved invoice:** Financing against an unapproved invoice is less risky for the bank compared to PO financing; the bank has the guarantee that the deal is genuine since the goods have been delivered. However, it is still risky as the buyer has still not approved the invoice, and there is the possibility of not paying the supplier. Financing against unapproved invoices are generally provided with recourse to suppliers, as buyers has not approved the invoices for payment at maturity. Only fraud risk applies in this case. Hence, the overall risk is lower in this case because the deal is genuine and there is a greater probability of the buyer paying as compared to the PO stage. Hence, at this stage banks usually lend ~50-60% of the invoice amount.

- **Approved invoice:** This is the least risky SCF product for banks, as the bank has recourse to the big buyer (who is legally bound to pay) and the goods have been delivered. Due to this, banks can easily opt for purchasing the receivable from the supplier. All two forms of risks i.e. performance risk, and fraud rise, are very low at this stage because the big buyer has a good credit rating and strong financial standing.

1.1.2 SCF ecosystem

The supply chain finance ecosystem consists of a diverse set of players. As highlighted in Exhibit 3, these include core players like suppliers, buyers, banks, etc. and supporting players like industry associations, regulators and advisors.

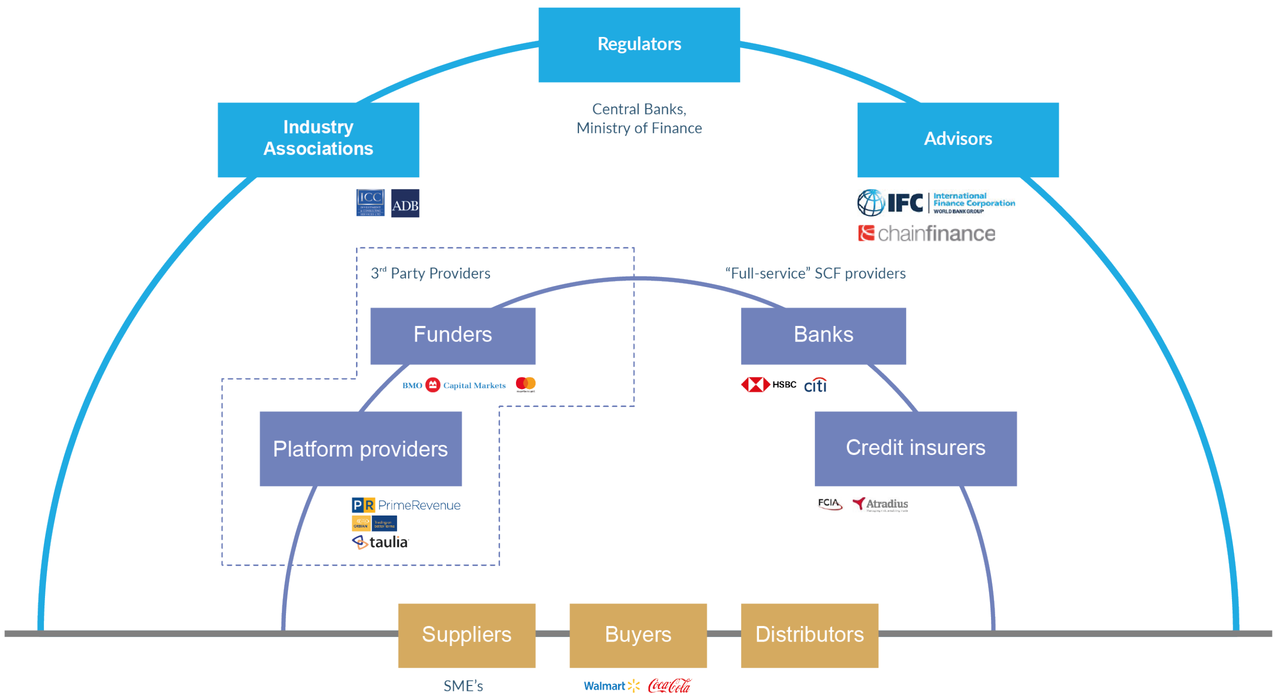


Exhibit 3: SCF ecosystem
The SCF ecosystem consists of a diverse set of players

1.1.3 Benefits of SCF

SCF offers many benefits to all parties involved along the value chain—suppliers (both SMEs and large corporates), buyers, distributors and financial institutions.

Benefits for suppliers:

- Suppliers can improve their working capital efficiency (decrease their Days Sales Outstanding (DSO) and improve their cash conversion cycle) by getting paid (by the financial institution) earlier than they otherwise would have (by buyers).
- Some SCF products can offer a relatively less expensive source of financing for SME suppliers based on the financial and commercial strength of large anchors.
- SCF improves suppliers' relationships with their buyers through increased collaboration due to higher integration across the supply chain.
- Provides benefits to key stakeholders in treasury and sales department. It helps the treasury department improve the overall liquidity of the company by improving the cash cycle. Further more, it also allows the sales team to further expand their overall sales by increasing the number of sales on credit, as the company can easily get financing against those credit sales.

- For products like payables finance (reverse factoring), it provides the seller with off-balance sheet financing as the financial institution takes ownership of the underlying receivable, hence it does not appear on the balance sheet.
- In the case of distributor finance, sellers can generally de-risk their balance-sheets and maintain enough primary sales while managing adequate inventory levels at the distributor side.

Benefits for buyers:

- Buyers can also improve working capital efficiency extend their Days Payable Outstanding (DPO), as the buyer gets a payment extension from the financial institution.
- In the case of reverse factoring, buyers can stabilize their supply chain when strategic sup pliers are brought on board the SCF program. SCF facilitates building a long-term relationship with a secured supplier base for the buyer.
- Innovative new solutions in the supply chain finance field like dynamic discounting provide the buyer with a discount on early payment, hence having a positive impact on the EBIT.

Benefits for distributors:

- Distributors can improve working capital efficiency (extending their DPO) through payment extensions from the financial institution.
- SCF provides distributors access to financing by leveraging their business relationship with large manufacturer
- SCF can improve distributors' relationships with their sellers through increase collaboration due to higher integration across the supply chain.

Benefits for financial institutions:

- SCF fosters long-term relationships with large buyers through heavy interaction with key stakeholders, including CFOs, treasurers and heads of procurement in buyers' organizations.
- SCF helps broaden the financial institution's customer base by providing access to new SME clients (through programs like reverse factoring and distributor finance). This provides an opportunity for cross-selling.
- SCF represents a very stable and low-risk revnue stream compared to both conventional lending products. Firstly, the financing for SCF products is structured around a large anchor, providing self-liquidating or water fall transactions. Moreover, SCF programs have fee-based income in addition to interest in comes.They also tend to be short term compared to a perpetual working capital line.
- SCF typically involves a low acquisition cost and better risk management due to increased access of data and information. It creates value addition in transaction business, enhancing wallet share and increased returns on client relationships.

1.2 Global opportunity

In an IFC survey, access to finance ranked as the top impediment to growth of SMEs, a major driver of the world economy. This issue is more prevalent in emerging markets such as Sub-Saharan Africa, East Asia & Pacific, and Latin America (Exhibit 4). The survey further indicated that about half of formal SMEs globally are either unserved or underserved by financial institutions.

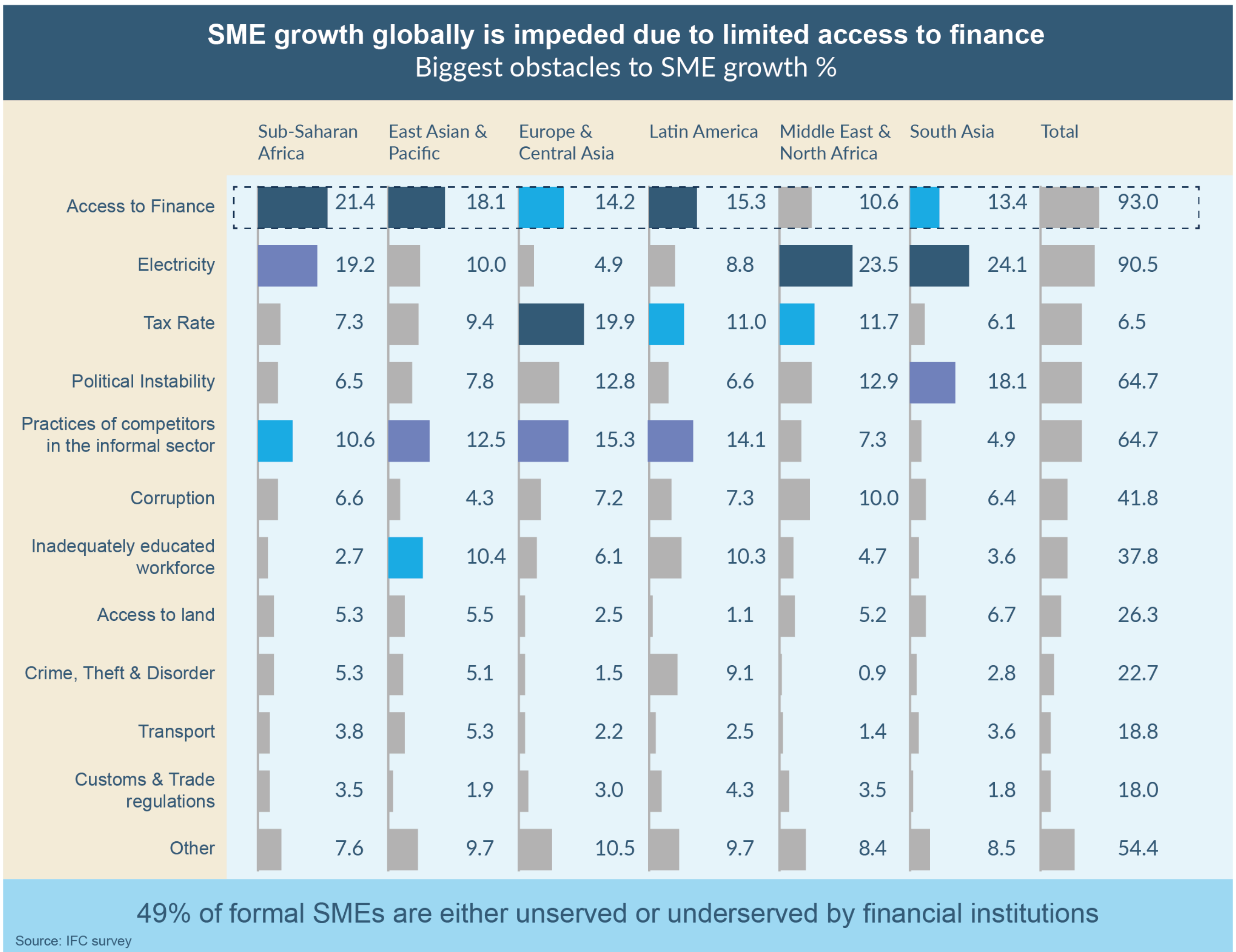


Exhibit 4: Key inhibitors of SME growth

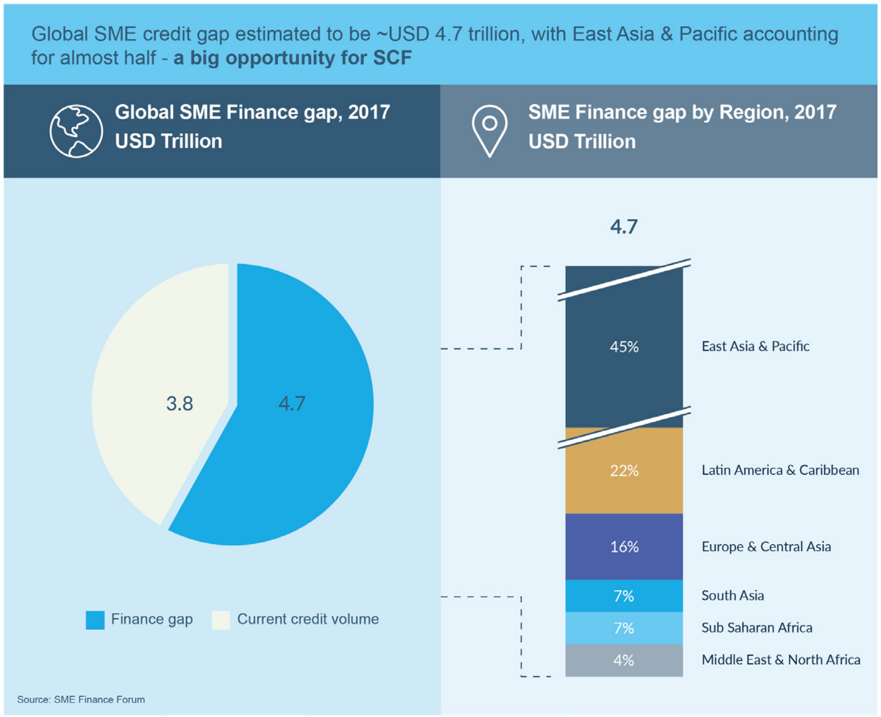


Exhibit 5: SME credit gap

This has resulted in a significant SME credit gap. In 2017, IFC estimated the size of the global SME credit gap at around USD 4.7 trillion (Exhibit 5). Expectedly, the credit gap is more pronounced in emerging markets, with East Asia & Pacific alone accounting for more than half of it. This represents a huge opportunity for financial institutions looking to bridge the credit gap through SCF, particularly in emerging economies. Indeed, SCF has become more prevalent in recent years. Global SCF assets have grown steadily at around 5% p.a. between 2009 and 2017, reaching over USD 4 trillion. Captured SCF assets have grown even faster—at 17% p.a. over the same period, reaching around USD 700 billion. There is considerable scope for further growth with around USD 3.5 trillion in potential SCF assets yet to be tapped (Exhibit 6).

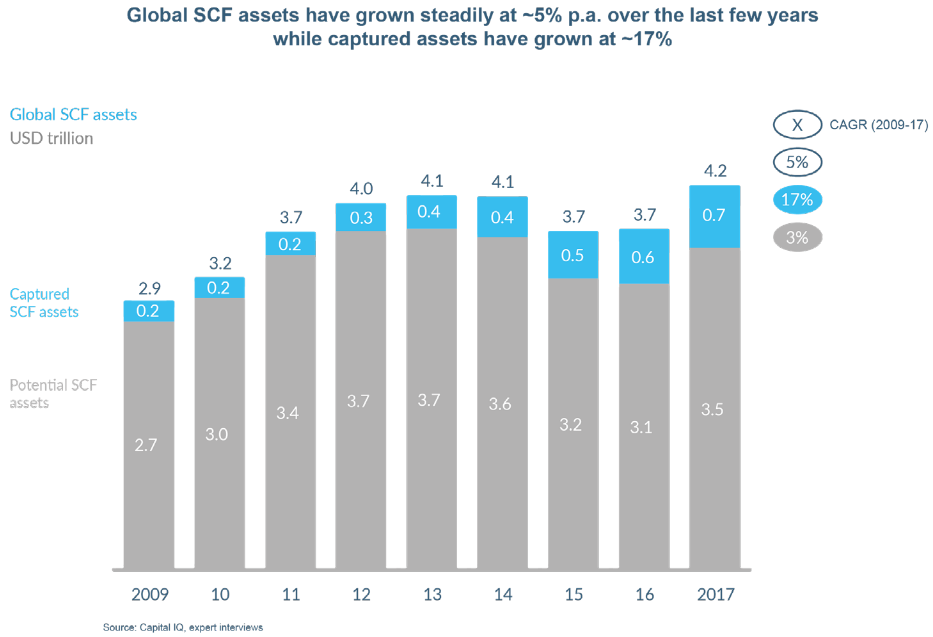


Exhibit 6: Global SCF assets

1.3 Key trends shaping the SCF ecosystem

Captured SCF assets have rapidly grown over the last few years and the opportunity for further SCF growth beckons. Five key trends are shaping the global SCF ecosystem:

1. **Evolving global supply chains are shaping the SCF market**

- Globalization has lengthened supply chains, in creasing the number of suppliers and transact- ions.
- Development of direct sourcing has increased the complexity of supply chains and under scored the need for integrated solutions.

2. **Technology improvements and FinTechs are disrupting SCF**

- Third-party providers and FinTechs provide buyers and suppliers access to financial services from multiple liquidity providers, beyond just regular banks.
- Automation of full procure-to-pay and order-to-cash cycles have enabled event-trigger financing services, including SCF.

3. **Facilitators continue to shape and develop the SCF ecosystem**

- Industry associations help promote SCF in developed markets through investments and engagement with stakeholders (governments, banks,corporates, and SMEs).
- Credit insurance companies allow SCF providers, including FinTechs to transfer credit risk and outsource credit processes.

4. **Global banking regulations are favorable to SCF growth**

- Basel III created harsher treatment on trade finance overall (one-year floor treatment, with counterparty risk focus rather than per formance risk).
- However, SCF finance reduces overall counterparty risk, and therefore represents a lighter capital strategy.

5. **Scarcity and cost of capital are creating a window of opportunity for SCF**

- Since the credit crunch, credit arbitrage (between investment grade and non-investment grade) have significantly widened.
- This has created a great incentive to explore SCF programs allowing noninvestment-grade suppliers to benefit from investment-grade financing rates (through its large anchor buyer).

1.3.1 Evolving global supply chains are shaping the SCF market

International trade is transitioning, a vast majority of trade now takes place on open account. As shown in Exhibit 7, ~80% of total trade volume currently is based on open accounts. Number of account transactions are expected to grow further because of:

- Increasing demand for swift trade processing in the increasingly competitive corporate world
- Advancing technology has enabled the automation of the full procure-to-pay (or account-payables) and order-to-cash (or account-receivables) cycles
- Increasing financial knowledge among top management about the benefits of financing of open account transactions. (A good portion of SCF is targeted to open account transactions hence a growth in open account transactions allows for increased SCF opportunities)

Open account transactions are growing globally

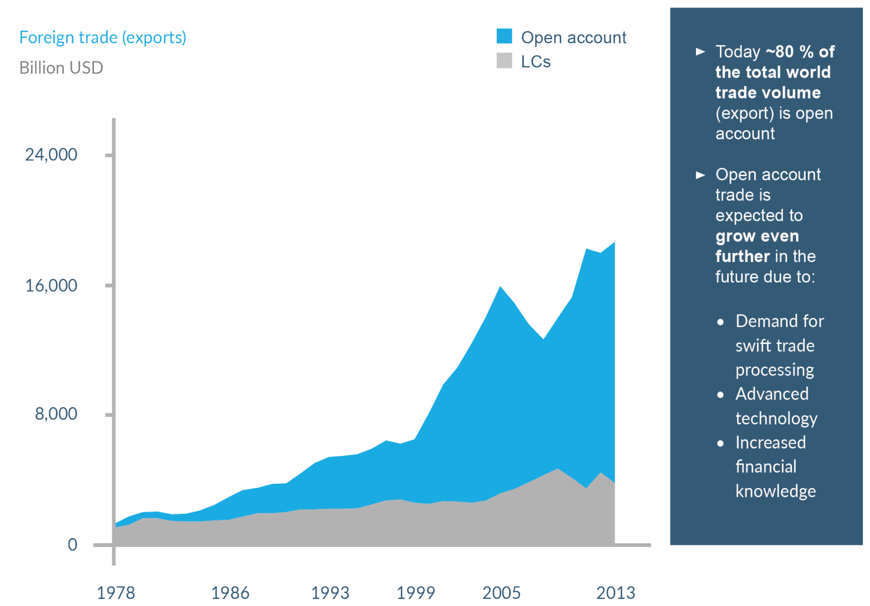


Exhibit 7: Growth in open account Transactions

Globalization has lengthened supply chains, increasing the number of suppliers and boosting the number of transactions. This is evidenced through growing global trade volumes—~6% p.a. between 2000 and 2017. This growth has largely been driven by emerging markets, with trade between emerging and developed markets and intra-emerging markets trade growing at 7% and 12%, respectively, over the same period (Exhibit 8). To capture their share of the SCF opportunity in these emerging markets it is imperative for global financial institutions to increase their presence.

Supply chains are increasingly globalized, driven by increased trade in emerging markets

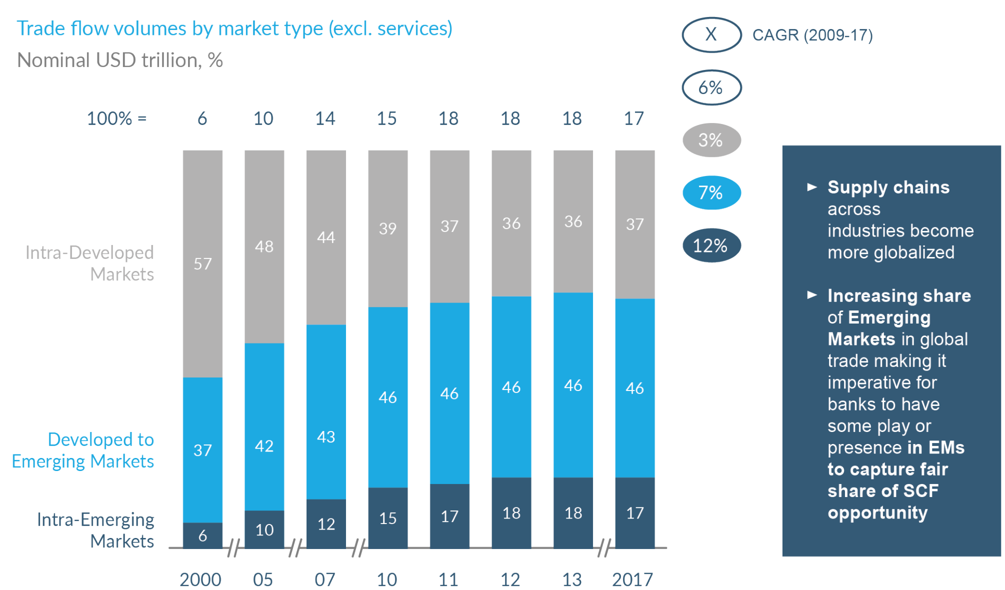


Exhibit 8: Global Trade Volumes

The development of direct sourcing has also made supply chains more complex and created a need for integrated solutions like SCF across the value chain.

1.3.2 Technology improvements and FinTechs are disrupting SCF

Third-party providers and FinTechs have disrupted SCF, providing access to finance and technology improvements that have helped automate both the procure-to-pay (refers to integrated business process through which a company sources inputs to its procurement system from requisition to fulfilment of each transaction) and order-to-cash cycles (refers to process through which an organization moves from receiving a customer through collecting cash including order entry, product availability checks, invoicing and dispute resolution)

There are now three typical archetypes of providers in the SCF landscape (Exhibit 9):

- **"Full service" banks:**

These players provide a one-stop-shop for SCF by providing a combination of an SCF IT platform and funding. They include global banks that have either developed proprietary systems or purchased white-labelled systems from external vendors, e.g. RBS, Citibank and Standard Chartered.

- **Third-party platforms:**

Platform providers: These are pure-play SCF platforms, B2B networks, e-invoicing solution providers and software vendors who offer SCF solutions in partnership with banks and financial institutions. Examples include Prime Revenue and Orbian.

- **Funders:**

- **Bank funders:** These players do not have proprietary SCF IT platforms and partner with independent platforms to offer SCF funding to bank customers, e.g., ING, Bank of Nova Scotia

- **Non-bank funders:** Financial arms of MNCs, institutional investors, hedge funds, or credit card companies that provide SCF funding through platform providers, e.g., Siemens via Orbian, MasterCard via Basware.

From the perspective of a seller, buyer or distributor looking for an SCF provider, there are advantages and disadvantages to going with full-service banks or third-party platforms and FinTechs:

Full Service Banks

Advantages:

- Large corporates typically prefer to work with banks with an established, on-going relationship.
- These banks provide easy access to financing and expertise on legal issues and transactions in multiple jurisdictions.
- Many large banks have proprietary SCF platforms customized to large buyers.
- Banks can operate across the SCF product portfolio including receivable purchase and loan-based products

Disadvantages:

- Due to customization and lengthy legal documentation, customers are locked in, leading to high switching costs for buyers and suppliers.
- Suppliers need to enrol in multiple systems if buyers use different SCF providers.
- Small suppliers may not represent attractive clients for banks due to the intricate and lengthy KYC process.

Third-party platforms/FinTechs

Advantages:

- A multibank platform hosted by a third-party fosters competition among banks and usually offers competitive rates for buyers and suppliers.
- Suppliers can easily compare rates, sell accounts

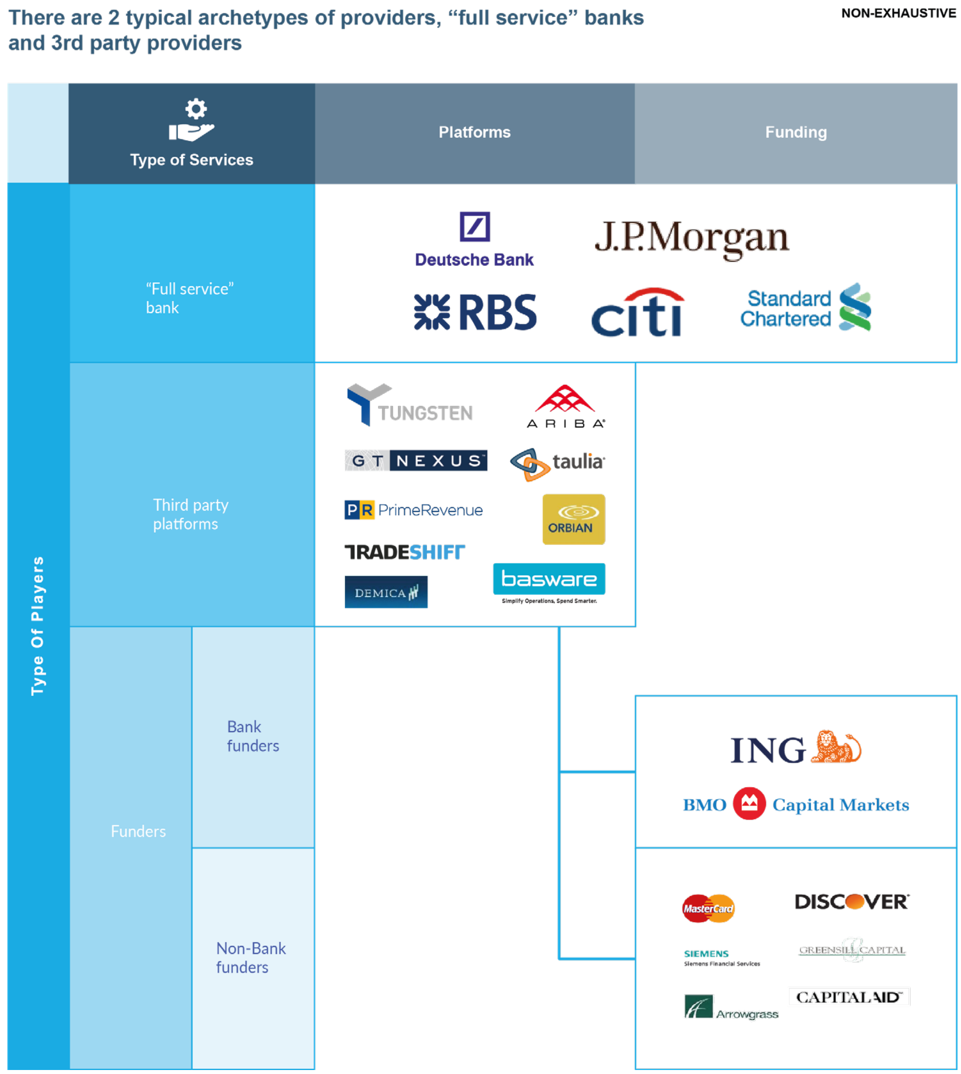


Exhibit 9: Archetypes of SCF providers

payable and receive payments in real-time.

- Independent third-party providers react quickly to feedback on their platforms and upgrade IT

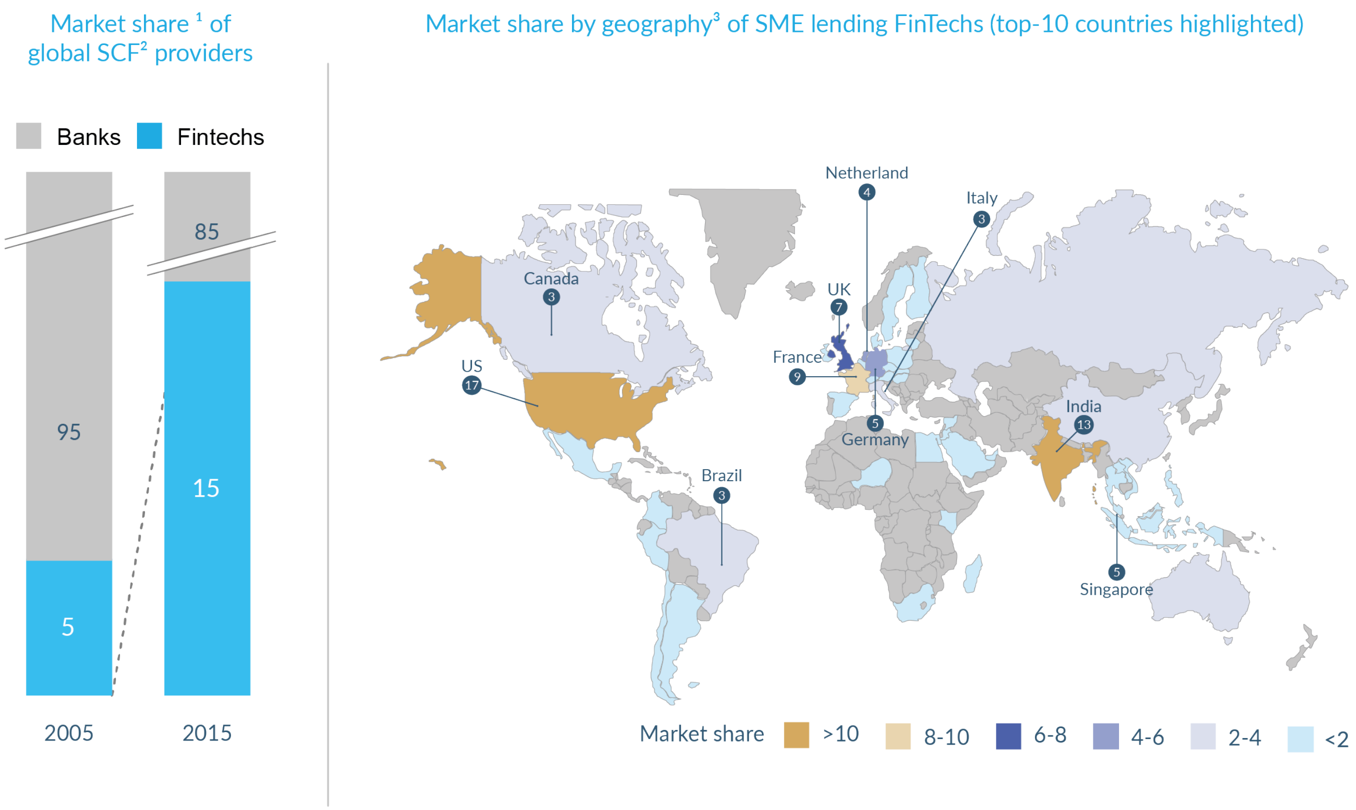
Disadvantages:

- Some buyers and suppliers may be concerned about working with unfamiliar third-party plat forms. They maybe more tempted to stay with their existing, trusted banking relationship.
- Third-party platforms may not achieve a lockin with the individual customer and find it more difficult to strengthen the relationship or realize cross-selling opportunities.
- Fintechs are mostly focused on the receivable based SCF products, with limited capabilities in loan-based SCF product category

FinTech disruption in SCF

Much like other domains in the financial sector, Fin-Techs have been major disruptors in SCF in recent years. For example, the FinTech share of SCF assets increased by 10 percentage points between 2005 and 2015. Currently, the US, India and France have the lead in terms of the number of SME-lending FinTechs (Exhibit 10).

FinTech share of SCF assets increased by 10 p.p. over 2005 15, reaching 15%, with the US leading the SME-lending market



[1] Based on SCF assets
[2] Defined as optimization of the working capital and liquidity tied up in supply chain processes for collaborating business partners
[3] Based on total number of Headquarters (HQ) present in the country of FinTechs that lend to SME's

Source: Strategic Treasurer, Panorama database

Exhibit 10: SCF Fintech Overview

Fintechs are increasingly looking to transition from processing services to higher margin products like financing. However, due to high cost of financing for Fintechs, they only get access to risky, small clients. Over time, FinTechs have expanded their product offering across the value chain. Some FinTechs started upstream, offering services for sourcing, contracting, procurement, and invoicing, and subsequently expended into SCF (invoice approval and financing). Examples include GT nexus, which initially focused on providing e-invoicing facilities, but has since expanded downstream to provide supply chain financing services to clients. Ariba, SAP and Basware are other examples of players who have moved downstream into SCF. Other FinTechs started as pure-play SCF providers, but gradually moved upstream into invoicing. Demica, Prime Revenue, and Orbian are examples of such FinTechs (Exhibit 11).

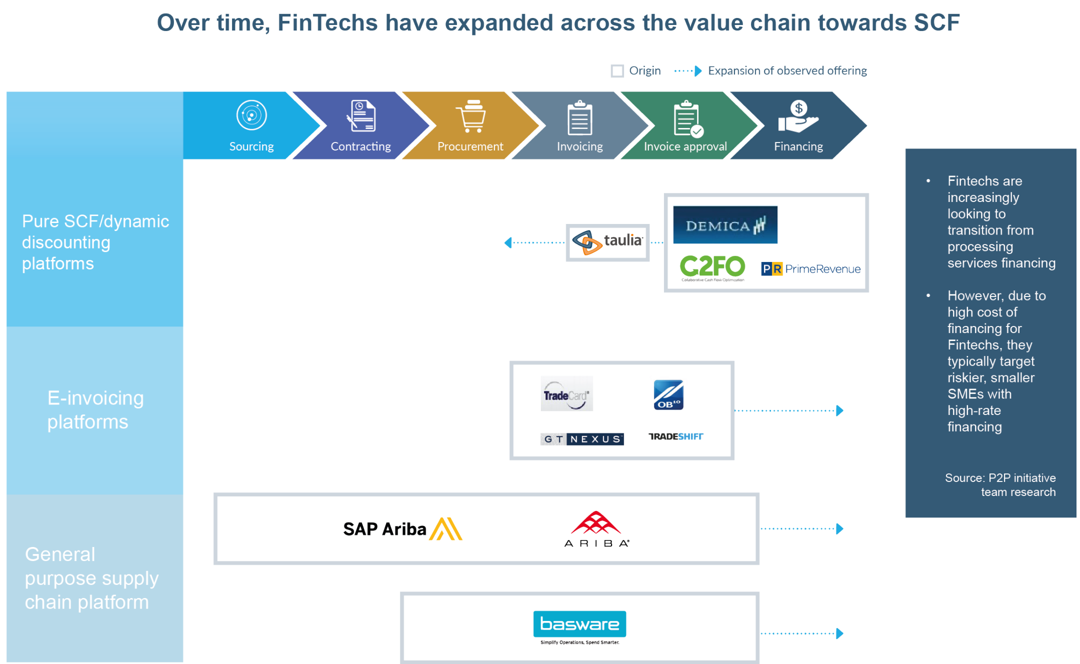


Exhibit 11: Value chain map for major Fintechs

Exhibit 12 provides an overview of major FinTechs and their product offering across the receivable product portfolio.

Currently, major FinTech players operate across the SCF receivable product portfolio

Receivables purchase products

✓ Recent portfolio additions

FinTech players	C2FO	PrimeRevenue	taulia	TRADESHIFT	SAP Ariba
Invoice factoring					
Invoice discounting	✓ Through WFC, established recently				
Payable finance (reverse factoring)		✓	✓	✓ Partnership with Taulia and banks	✓ Through banks and PrimeRevenue
Dynamic discounting	✓	✓	✓	✓ Partnership with C2FO (and Taulia)	✓
Relative strengths	Unique dynamic discounting algorithm	Strong in SCF with many partner banks	Strong invoicing platform helps buyer acquisition	Business platform offering financing through partners	Business network with strong source-to-pay offerings

Exhibit 12: SCF product portfolio for major Fintechs

1.3.3 Facilitators continue to shape and develop the SCF ecosystem

Two major types of facilitators who can further help shape and develop the SCF ecosystem are industry associations and credit insurance companies:

Industry associations play a significant role in promoting and facilitating growth of SCF markets by providing advisory services or through direct investments.

- **Advisory services:**

Building SCF capacity for financial institutions

- Industry associations build capacity of financial institutions in developing strategy, market segmentation, credit risk management, product development and other relevant areas.
- Industry associations can promote sub-sectors for SCF by organizing conferences and joint sessions with key stakeholders, including financial institutions, corporates and governments.

Examples:

- IFC & The World Bank is currently working in several countries with the regulators to institute changes to the factoring laws and insolvency regimes, creating the appropriate frame works to institute moveable collateral registries, promoting SCF standards, guidelines and establishing SCF specific targets, as well as changing the laws to accept electronic signatures
- IFC's Supply Chain Finance (SCF) Advisory Services help banks build scalable SCF business operations. These enable banks to win market share, mitigate underwriting risks, and build their corporate and SME client base IFC has developed a proprietary SCF competency assessment tool which help banks benchmark themselves against the SCF competency frame work as shown in Exhibit 13.
- The International Chamber of Commerce (ICC) conducts a yearly summit on SCF to share best practices and insights across institutions, allow ing these institutions to enhance their SCF programs based on learnings shared at the summit.

- **Developing financial infrastructure**

- Industry associations help develop credit-reporting infrastructure that is important for SCF. This is done through advisory services to credit rating agencies and governments. Credit-reporting infrastructure helps provide visibility on the credit rating of buyers, suppliers and distributors.
- Industry associations support the development of secured transactions, collateral registries and a legal and regulatory framework for SCF by advising governments on the best-in-class regulatory and legal guidelines to promote SCF.
- Industry associations build the capacity of public and private sector organizations in technical infrastructure, including SCF IT platforms.

Examples:

- IFC also invests and partners with financial technology companies working in the supply chain finance space, which are either licensed services providers or marketplaces. These platforms have proven to be essential to connect buyers, sellers and funders in the market and have increased productivity, trans parency, the timeliness of the delivery of invoices, and reduced operational risks.
- The International Chamber of Commerce's year ly trade register report advises key stakeholders on how to overcome major regulatory hurdles. Furthermore, IFC completed a review of leading SME finance practices and identified successful practices & policy measures for SMEs

- **Investment**

Providing access to finance

- Industry associations provide blended finance options to support the expansion of SCF programs. This includes providing grace periods to financial institutions pursuing SCF with subsi dized rates.

- Industry associations also develop focused SCF programs for underserved segments through incentives to financial institutions. This inclu-des subsidized fees for financial institutions tar geting agricul-ture producers with SCF.

Examples:

Asian Development Bank's (ADB) SCF program provides more than USD 200 million in annual financing to SMEs across developing markets in Asia.

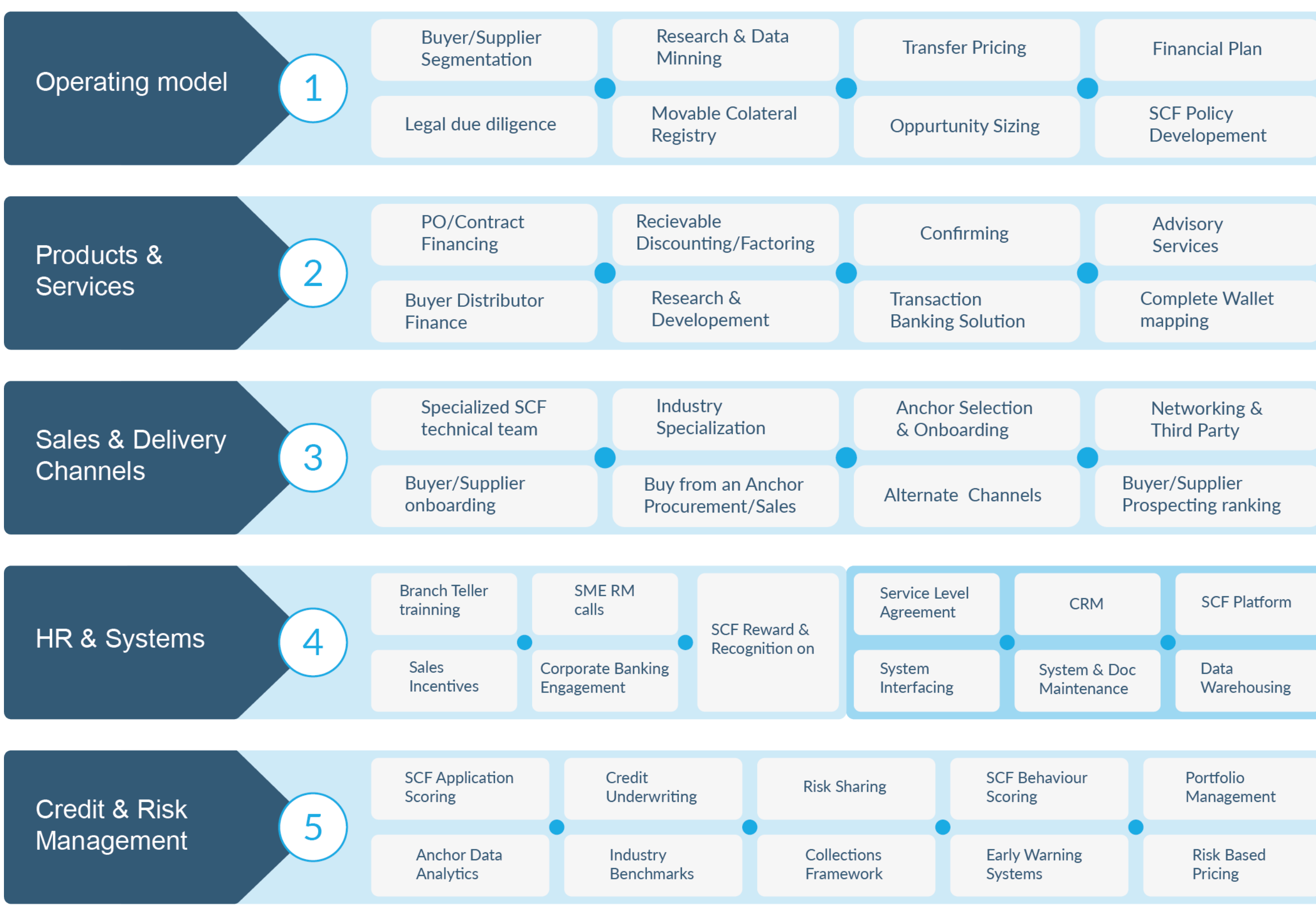
Providing risk-mitigation measures

Industry associations provide risk-sharing facilities and partial credit guarantees. This enhances risk-tak-ing capacity and provides capital relief for financial institutions.

Examples:

IFC through its distributor finance program provides funded or unfunded risk sharing facilities and partial guarantees.

IFC SCF Competency Framework



Creating Markets, Creating Opportunities

Exhibit 13: IFC's SCF competency assessment tool framework

Credit insurance companies allow financial institutions to transfer credit risk and outsource credit processes:

- **Transfer of credit risk**

  - Credit insurance allows the transfer of default or insolvency risk of the buyer from the financial institution to the credit insurance company. This reduces the overall risk associated with SCF products for financial institutions.
  - Credit insurance also increases the number of receivables eligible for SCF. Even non-investment grade assets can be financed by the financial institution through SCF because the credit risk is transferred from the non-investment grade company to the credit insurance company.

- **Outsourcing of credit process**

  - Financial institutions can hand over the credit due diligence on SMEs (with limited data available) to credit insurance agencies with access to good quality data and analytical resources. This enables financial institutions to make more in formed SCF decisions.
  - Financial institutions can save on the costs and resources for end-to-end credit due diligence on suppliers and buyers, creating room for a more focused approach on front-end processes, e.g., origination and conversion of clients.

- **SCF credit insurance can be financial institution- or corporate-led:**

  - **Financial institution-led credit insurance:** The financial institution buys the credit policy and insures all the accounts receivables it buys from multiple clients/suppliers.
  - **Corporate-led credit insurance:** The corporate buys the credit policy and insures accounts receivable. In this case, the financial institution takes ownership of pre-insured receiva bles.

1.3.4 Regulatory Framework

The regulatory environment plays a major role in facilitating supply chain financing in any market. It determines the ease with which financial institutions can buy and resell goods and how quickly cases of default can be resolved. As banks and firms look to adopt supply chain financing programs, the legal and regulatory structures of the region and country must be fully understood and accounted for. Overall, there are **six** types of regulations that have a significant effect on financial institutions wanting to launch supply chain financing programs:

Standard receivables purchase agreements

A receivables purchase agreement is a contract in which the financial institution purchases the right to collect a supplier's receivables in exchange for upfront cash. The seller gains security, while the buyer gains a profit opportunity. This allows a financial institution the right to collect receivables from the respective corporation through a legally binding contract, which then allows financial institutions to take cases of default to a court of law. The added security and reduction in risk opens the supply chain market for more players.

Example of regulations allowing standard receivables purchase agreements

India currently employs the law of assignment of receivables that allows a lender (financial institution) to secure its rights against the borrower (supplier). The law also allows the assignment of future receivables—receivables that do not exist now, are contingent, conditional, or uncertain at the time of the receivables purchase agreement.

Payment term laws

Payment terms are conditions under which a seller is required to finalize a sale. Usually, these terms specify the maximum period granted to a buyer to pay off the sale amount due. This could adversely affect the SCF (specifically reverse factoring) as **large buyers cannot seek to lengthen their payment periods**

Example of regulations impacting payment terms

In 2008, France passed a law for the modernization of the economy (known as the LME law) that instituted a ceiling for contractual payment terms agreed between professionals to "45 days end of month" or "60 days from the date of issuance of the invoice". Sweden and Italy follow similar regulations

Basel III requirements

Basel III is an international regulatory accord that introduced a set of reforms designed to improve regulation, supervision and risk management within the banking sector. The Basel Committee on Banking Supervision published the first version of Basel III in late 2009, giving banks approximately three years to satisfy all requirements. Largely in response to the credit crisis, banks are now required to maintain proper leverage ratios and meet certain minimum capital requirements.

Basel III **is largely favourable** to **supply chain financing, as counterparty risk is reduced** compared to standard SME lending. There are two main reasons for this. Firstly, the risk is shifted to a big anchor buyer with a presumably better credit rating, leading to lower probability of default. Secondly, SCF is typically a short-term lending product (less than one year), thereby reducing the probability of default. This, in turn, brings down the hurdle on capital returns.

Know-Your-Customer (KYC)

Know-Your-Customer is a policy implemented to standardize a customer's identification program. Strict restrictions on KYC can be expensive and time consuming for financial institutions. This results in inflated costs for supply chain financing programs. As a result, financial institutions only roll out programs for **very large buyers** and their **biggest suppliers.** Spain has lower KYC and onboarding requirements which allow banks to reduce their operational costs. This has enabled banks in Spain to target a broad range of suppliers and increase reverse-factoring volumes (current volumes amount to 18% of GDP).

E-invoicing

An electronic invoice is an invoice that has been issued, transmitted and received in a structured electronic format which allows for its automatic and electronic processing. An e-invoicing **law requires suppliers to use a standard government invoice** format that is transmitted and approved via government servers. This invoice often acts as a bill of lading that is required to accompany all shipments. This has deep implications for financial institutions operating in the supply chain market. Firstly, it **minimizes risk of fraud** (e.g., double assignment of receivables) by maintaining a central repository of invoices. Secondly, it significantly **lowers operational cost** for supply chain financing programs since all suppliers subscribe to a single invoice format. Lastly, it helps **reduce the processing times** for transactions and provides swift financing to clients.

Prevalence of e-invoicing schemes across the globe

Brazil launched the first e-invoicing movement in Latin America in 2007. By mid-2017, Argentina, Ecuador, Mexico, Peru and Uruguay had advanced and mature e-invoicing schemes. The potential of this tool has sparked interest in other countries. In Asia, South Korea established electronic tax invoicing in 2011. Several European Union countries require the use of e-invoicing for all commercial transactions within the public sector. In Denmark, for example it has been obligatory since 2005. Finland and Italy will require the use of e-invoicing for all B2B operations starting in 2019.

Electronic signatures

- This is a law that grants legal recognition to electronic signatures and records, if all parties to a contract choose to use electronic documents and sign them electronically. It accords electronic contracts the same legal standing as physical contracts. This **allows faster and easier approval of contracts** for financial institutions engaged in supply chain financing. Electronic signatures are legally binding in 27 countries, including Canada, China, Russia, USA and those in the European Union.

Regulations in Pakistan

Current regulations in Pakistan allow banks to offer supply chain financing products to the market but the ground realities for financial institutions often vary and need to be accommodated. Financial institutions looking to engage in supply chain financing programs need to be aware of the following Pakistani regulations that apply to them

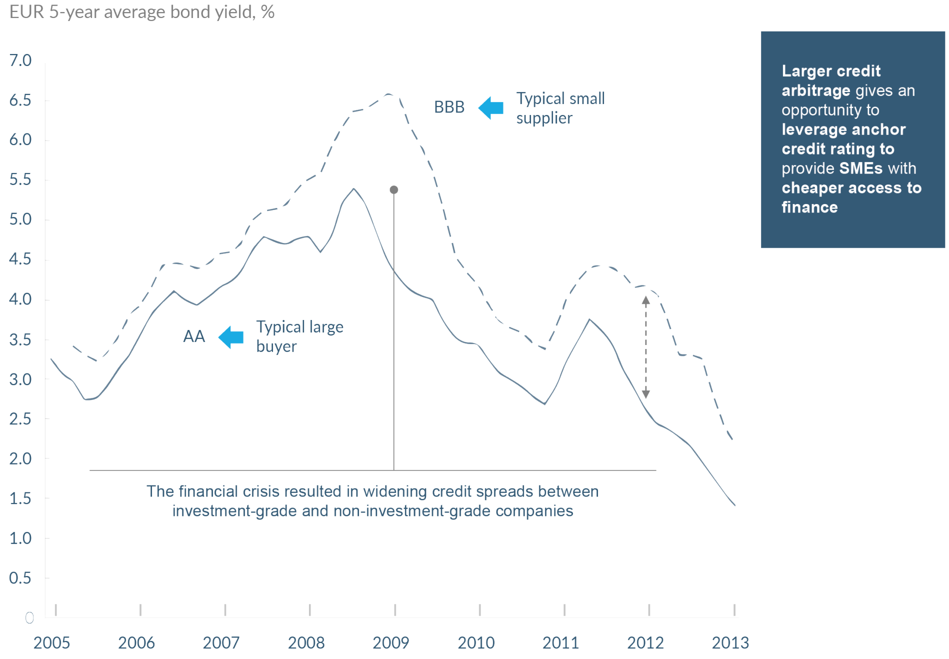
- The **Financial Institutions Act of 2016** allows purchase of receivables while providing banks the right to collect receivables. Banks can also collateralize loans with current assets under Pakistani law. As a result, both l**oan-based and receivables purchase products can be launched** by financial institutions.
- Pakistan currently has no payment restrictions for buyers and suppliers. This improves market opportunity (specifically reverse factoring) for financial institutions seeking to enter the supply chain financing market. This is because **large buyers seeking to lengthen payment** periods can serve as potential customers for supply chain financing.
- Pakistan employs **strict KYC restrictions** under guidelines from the State Bank. This increases the operational cost for financial institutions. As a result, it will be perceived more viable for financial institutions to roll out supply chain financing programs for larger entities (e.g., relatively large **buyers** and their sizeable **suppliers**).
- Pakistan currently has no e-invoicing law that requires a standard government invoice format for processing of payments. This increases the **cost and complexity** of supply chain options as each supplier and buyer use different formats for payment processing. It also increases **the risk of fraud** due to lack of central registration of invoicing, leading to issues such as **double assignment.**
- The **Electronic Transactions Ordinance 2002** declares validity of electronic signatures cannot be denied their legal effect just because they are electronic. This could potentially allow banks to engage in electronic contracts **to reduce operational costs.** However, the use of electronic contracts is still limited, and large corporations often avoid using them.

1.3.5 Scarcity and cost of capital are creating a window of opportunity for SCF

Supply chain finance products such as receivable discounting, forfaiting & factoring are ideal for a non-investment-grade supplier to benefit from investment-grade financing rates. These SCF products typically provide control on cash flows, visibility of transactions, and underlying contracts between buyer and supplier. More over Bank obtains support and agreement with large corporates as an anchor to reduce the information asymmetry of SME supply chain partners.

After the credit crunch, the credit arbitrage between non-investment grade and investment grade has widened significantly (Exhibit 14). This has increased the incentive for suppliers to pursue reverse factoring and payable finance SCF products.

The financing rate gap has increased globally after the financial crisis, opening the door for more SCF adoption



Source: Bloomberg

Exhibit 14: Credit Arbitrage

Chapter 2 Best practices for financial institutions seeking entry into the SCF space

SCF is a high-potential market for financial institutions globally. However, success at a program level is determined by the SCF operating model. This section highlights 13 best practices that financial institutions should follow across the SCF operating model to ensure successful entry into the SCF space, particularly in emerging markets that lack a robust SCF ecosystem:

Client segmentation and tailored products

1. **Segment clients and tailor SCF product offering to individual needs:** Choose industries most conducive to SCF, segment clients by turnover/discountable spend, and match SCF product offering to their unique supply chain needs

2. **Target clients top-down:** Identify and capture 1–2 large anchor clients first (with reverse factoring and/or distributor financing), before expanding to smaller players and other product offerings

Marketing and sales

3. **Lead with a focused marketing message:** Large clients are looking to stabilize their supply chain, push products downstream, and improve working capital; SMEs need quick and cheap financing

4. **Employ an RM-led coverage model, with product specialist support:** SCF product specialists can have a proactive or a reactive

Onboarding

5. **Identify and prioritize strategic suppliers**: Criteria for selecting suppliers to onboard include size, financial health, strategic objectives and relationship with buyer (reverse factoring-specific)

6. **Enlist help of anchor client in initial outreach and education of suppliers:** Passing on responsibility of first contact to a third party may erode supplier trust (reverse factoring-specific)

7. **Execute transparent and hassle-free supplier enrolment:** Processes and tools should be simple and standardized, but flexible enough to accommodate special supplier needs (reverse factoring-specific)

Organization and coverage model

8. **Build a team of product specialists, with RMs managing client relationships and assisting with supplier onboarding:** Product specialist team conducts sales, onboarding/implementation and customer service

9. **Link corporate RM and product specialist compensation to four KPIs:** Business origination, program implementation, program utilization, client impact

10. **Base revenue incentives for RMs and product specialists on booked or mirror/shadow accounting:** Simpler incentive models include the number of mandates won—set with a top-down target

Credit and risk

11. **Follow three key risk mitigation measures—anchor credit approval, supplier selection and monitoring:** Anchor credit risk is the economic basis of SCF; suppliers are evaluated in relation to the anchor

Technology

12. **Ensure the SCF IT platform has key functionalities:** Cover essentials like order and document management, e-invoicing, payment execution and tracking, ERP integration, etc.

13. **Leverage existing SCF platforms instead of building from scratch:** Outsourcing/white labelling is an efficient and hassle-free method to deploy an SCF IT platform

2.1 Client segmentation and tailored products

2.1.1 Best practice 1: Segment clients and tailor SCF product offering to individual needs

The first building block of any SCF program is the selection of industries and segmentation of clients for SCF. There are 6 key criteria based on which industries are selected for SCF:

- **SCF asset size:** The total size of underlying SCF assets is driven by size of COGS, percentage of discountable spend and percentage of COGS funded through SCF (detailed further ahead).
- **Accessibility of supplier/buyer:** The ease of access to supplier/buyer for the bank involved in the transaction can dictate if certain industries can be targeted for SCF (especially relevant for international trade).
- **Underlying business:** Certain businesses might be against the values of the bank e.g. weapons, hence the bank may not want to target these industries for SCF. Furthermore, the bank may not have expertise in the business to understand the underlying business and profit risks involved.
- **Seasonality of trade:** The overall portfolio for SCF that the bank would want to develop would ideally be not seasonal, with transactions happening all year round. Due to this consideration, the bank may opt out of targeting certain industries.
- **Transaction size and frequency:** The bank can focus on industries with medium level transaction size. This is because the risk is high for industries with large transactions and industries that usually have small transactions will not be able to cover the fixed cost on a per transaction basis.

Selection of industries

For banks to select target industries for SCF there are two major stages: exclusion of industries that are non-conducive to SCF and prioritization of the remaining industries.

- **Exclusion of industries non-conducive to SCF:** Service-focused industries are excluded—financial services, media, consumer services, commercial and professional services and software services. These are excluded because working capital efficiency and cash conversion cycles are not significant drivers of value.
- **Prioritization of remaining industries:** Prioritization of remaining industries is typically based on SCF assets. Industries with large potential SCF assets offer higher upside potential and biger supply chain ecosystems to target. There are two major drivers of size of SCF assets:
  - **Cost of Goods Sold (COGS):** COGS include all the direct costs attributable to the production of the goods sold. It encompasses the entire universe of inputs (from a buyer's perspective) that can be potentially financed through SCF.
  - **Percentage of discountable spend:** The second step is to exclude non-discountable spend that cannot be financed through SCF, including the cost of personnel, R&D and professional services.

Potential SCF assets are driven by COGS and percentage of discountable spend

Industries	COGS, incl. private companies, $B	Discountable spend[1] % ✕	SCF assets[2], $B, total = ~$8,907B =
Energy	5,245	46	1,689
Capital Goods	2,913	68	1,387
Automobiles and Components	2,293	73	1,172
Technology Hardware and Equipment	2,591	59	1,070
Materials	2,974	48	999
Utilities	1,796	44	553
Food, Beverage and Tobacco	1,104	66	510
Consumer Durables and Apparel	769	82	441
Retailing	2,073	30	435
Food and Staples Retailing	1,365	30	287
Healthcare Equipment and Services	759	25	133
Transportation	1,225	10	86
Pharmaceuticals, Biotechnology and Life Sciences	346	26	63
Household and Personal Products	112	64	50
Semiconductors and Semiconductor Equipment	244	19	32

Industries and sub industries not conducive to SCF are excluded i.e. financial services, media, consumer services, commercial and professional services and software services

1 Discountable spend % for each industry is based on Global Purchasing Excellence (GPE) survey and CAPS Research survey

2 Percentage of COGS funded through SCF across industries is taken at ~70%, assumed

Source: Capital IQ, Global Purchasing Excellence (GPE) survey, CAPS Research survey

Exhibit 15: Selection of Industry

Top-ranked industries based on SCF asset size globally include capital goods, energy, technology hardware and equipment and automobiles (Exhibit 15). After selection and ranking of industries, the financial institution should prioritize clients within the target industries (Exhibit 16). This a critical step as targeting major clients provides access to sizeable revenue opportunities and developed supply chain ecosystems. It also allows the financial institution to tailor its SCF program to the unique needs of its clients. Financial institutions should leverage their proprietary data on their existing corporate and SME customer base. Prioritization of clients involves three steps:

- **Ranking of SCF asset potential:** In this step, the financial institution ranks clients according to SCF asset potential. This is calculated based on COGS and percentage of discountable spend.

- **Industry benchmarking of DPO and DSO:** For each client, DPO and DSO are mapped against industry benchmarks. Clients with high potential for DPO/DSO improvement are prioritized.

Selection of suitable SCF products:

- **MNCs/Large corporates:** Financial institutions can offer two products:

  - **Reverse factoring / Payable finance** is targeted towards buyers who have below benchmark

DPO. Reverse factoring allows these companies to improve their working capital efficiency by extending their DPO and improving their cash conversion cycle.

- **Distributor finance** is targeted towards seers with above-industry benchmark DSO. This allows these companies to improve their work ing capital efficiency by shortening their DSO and improving their cash conversion cycle. More recently distributor financing is adopted by corporates for increasing their sales and managing the collections/funds coming from distributors.

- **SMEs:** SME sellers are targeted through receivables discounting, factoring or other loan-based products[1] in cases where their DSO is above the industry benchmark. This allows these SMEs to gain access to cheap finance and improve their working capital efficiency.

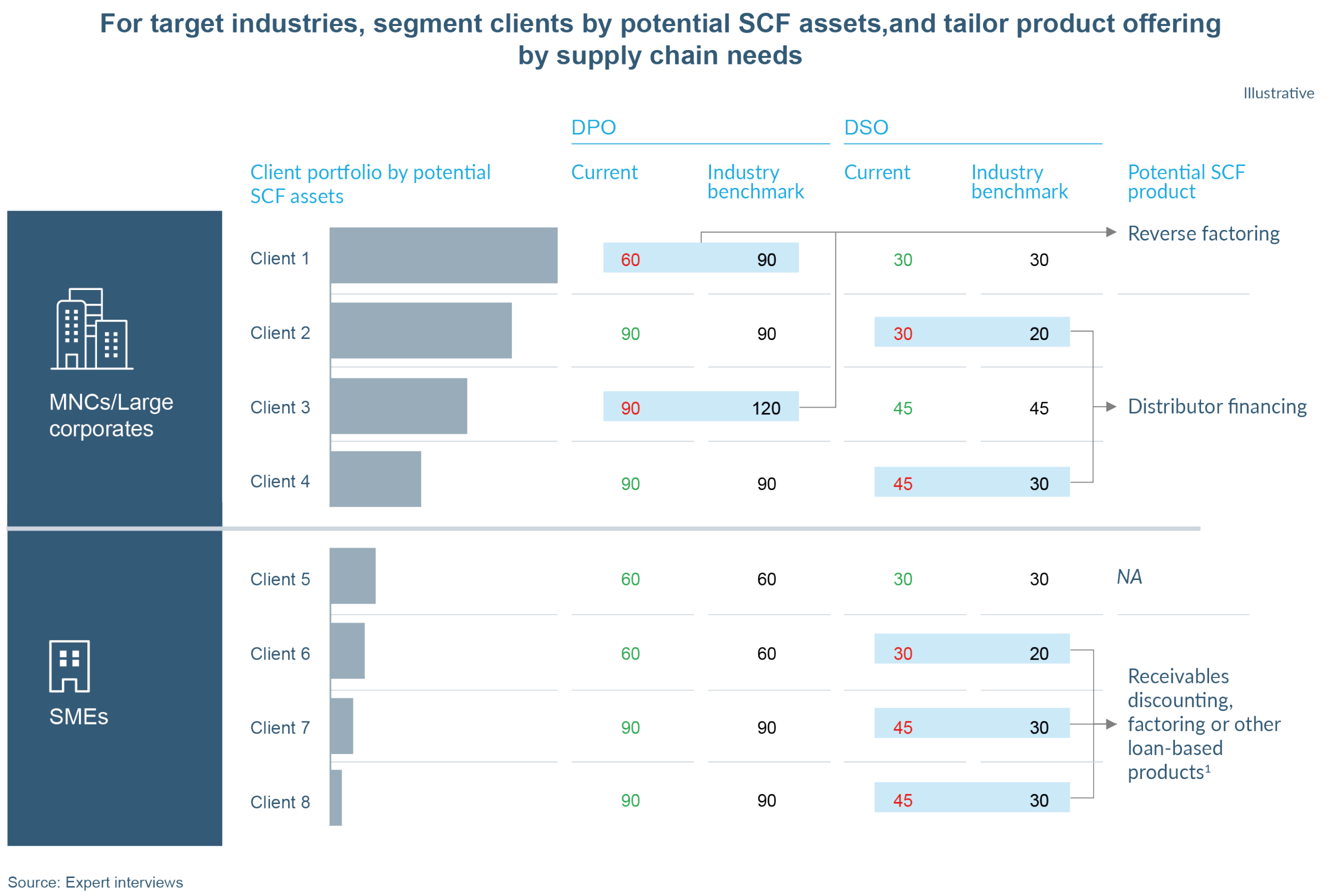


Exhibit 16: Segmentation Of Clients

2.1.2 Best practice 2: Target clients top-down

After prioritization of industries and clients and selection of suitable products, the next step is to design the outreach approach. For financial institutions new to SCF, it is best to take a top-down approach to target clients. This ensures major targets are prioritized with high upside potential. The top-down approach involves three main steps (Exhibit 17):

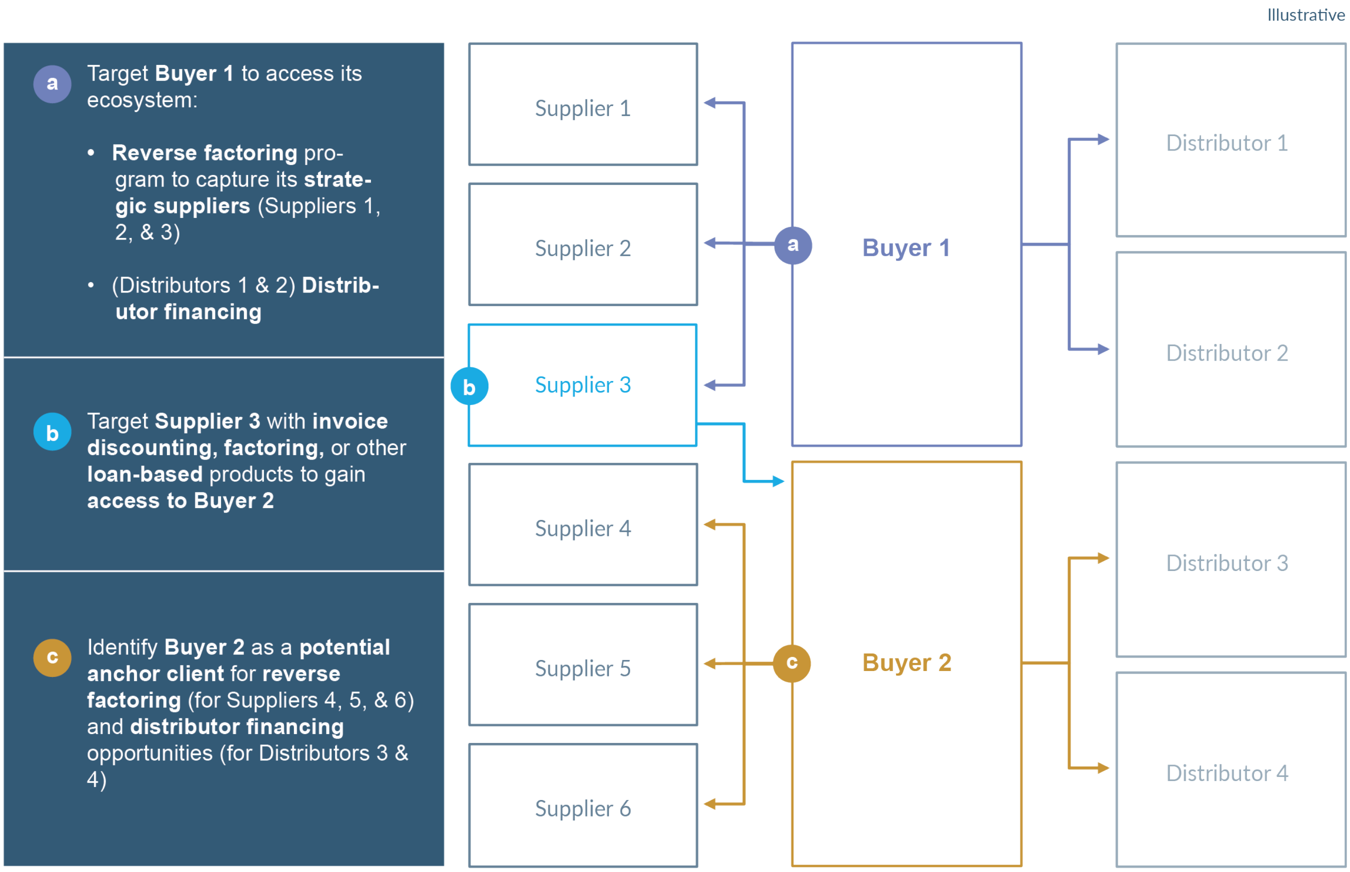
[1]Including loan against inventory, loan against receivable and pre-shipment finance

- **Target 1–2 major anchor clients:** The financial institution starts the SCF program by targeting one or two large anchor clients in the existing client base. These large anchor clients have a developed supplier- and distributor-side ecosystem. The objective is to gain access to this ecosystem:
  - Reverse-factoring program for their strategic suppliers
  - Distributor finance for their strategic distributors

- **Expand upstream and downstream into their SCF ecosystem:** Subsequently, the financial institution can expand into the anchors' ecosystems, establishing new relationships and cross-selling opportunities with new suppliers and distributors.

- **Identify new anchors:** Establishing new relationships with suppliers and distributors could potentially allow financial institutions to identify and access new large buyers who can act as anchor clients for new SCF programs.

Target clients top-down-identify and capture 1-2 large anchor clients first, before expanding into their supply chain ecosystem



Source: Expert interviews

Exhibit 17: Outreach approach

2.2 Marketing and sales

2.2.1 Best practice 3: Lead with a focused marketing message

- **MNCs and large corporates**: MNCs/large corporate needs vary depending on their role in the supply chain:

- <u>Buyers:</u> The marketing message for large buyers should focus on two major benefits of reverse factoring:

    - **"Reverse factoring helps stabilize your supply chain by ensuring your suppliers are well funded."** SCF can help strengthen long-term relationships with a secured supplier base.
    - **"Reverse factoring helps optimize your own working capital through increasing DPO."** SCF improves the liquidity and cash conversion cycle of the buyer. It is important to highlight the upside potential that the buyer can realize in terms of working capital efficiency through industry benchmark analysis for DPO.

- <u>Sellers:</u> **"Distributor finance can help push your inventory downstream by ensuring that distributors are adequately funded."** Large manufacturers and sellers are eager to ensure that the distributor holds enough inventory. This can be achieved with access to finance at a competitive rate based on the history of relationship with the large supplier.

- **SMEs:** Marketing message for SMEs should focus on 2 major benefits:

- **"SCF provides you access to a swift, competitive source of financing."** Access to finance is the most important factor that inhibits SME growth, with approximately half of formal SMEs currently either unserved or underserved. SCF provides a cheaper alternative to commercial loans.

- **"SCF helps optimize your working capital through decreasing DSO."** This is important for SMEs who are under continuous pressure from large buyers to extend their payment terms. SCF provides a win-win solution for buyers and sellers with better payment terms for both.

Marketing message varies by client-large buyers are looking to optimize working capital and stabilize supply chain, while SMEs need quick cash

SCF products		Marketing message	Example client	Example provider
MNCs/Large corporates	**Buyers:** Payables finance (reverse factoring)	• **Stabilize buyer's supply chain**-especially their most strategic suppliers • **Optimize own working capital** (increase DPO)	Walmart, Coca-Cola, Unilever	citibank
	Sellers: Distributor financing	**Push own products downstream** by ensuring distributors are adequately funded	Toyota, GM	Standard Chartered
SMEs	• Receivables discounting • Factoring • Other loan-based products[1]	• Get access to **(competitive) financing** • **Improve working captal** (decrease DSO)		HSBC, 中国银行 Bank of China

1 Includes loan against receivables, loan against inventory, and pre-shipment

Source: Expert interviews

Exhibit 18: Marketing message

2.2.2 Best practice 4: Employ an RM-led coverage model, with product specialist support

The next step for the financial institution is to design the sales coverage model to target anchor clients. There are three archetypes for coverage models (Exhibit 19):

- **RM-led with proactive product specialists:** The corporate banking RM is the main contact person for the client. However, product specialists also play an active role in initiating and developing a strong relationship with the client. Product specialists are actively involved in lead identification and account planning, alongside the RM. Product specialists also plays a key role closing the negotiations with the client. Deutsche Bank is an example of an SCF provider employing this archetype.
  - **Leverage ratio:** 5–9 clients per RM. This ratio goes down to around 2:1 for MNCs (e.g., Walmart, Coca Cola). Such a low leverage ratio is needed for MNCs and large corporates that require a high-touch and attentive approach from the RM.

There are 3 coverage models for SCF- RM-led models are used by best-in-class providers

Coverage models	Description	Leverage	Client	Example provider
RM-led with **proactive product specialists**	• **RM is main contact person** for clients - but clients have a strong relationship with product specialists as well • **Product specialists with proactive role** - involved in lead identification and account planning • **Product specialists involved in identification of product needs** and negotiations/closing if needed	• **5:1 to 9:1 clients-to-RM** • **2:1 for MNCs** (e.g. Walmart, Coca Cola)	MNC/large	Deutsche Bank
RM-led with **reactive product specialists**	• **RM covers** customers end-to-end for **most products** (from lead identification to closing) • For more complex client needs, **RMs draws in products specialists** (who are only involved by RMs upon request) • **Upon client request, product specialists involved** in identification of product needs and of product needs and negotiations/ closing	• **5:1 to 9:1 clients-to-RM** • **2:1 for MNCs** (e.g. Walmart, Coca Cola)	MNC/large or SME	citibank
Hunter-farmer model	• **Business development** professionals **identify leads** conduct **cold calls** to potential clients • Once contact is established with an interested prospective client, BD **hands over relationship to SCF product specialist** • **Lack of a single point of contact** RM makes this model **less suited for large clients**	• ~100:1 clients-to-RM	SME	*Smaller banks*

Exhibit 19: Coverage model

- **RM-led with reactive product specialists:** The cor porate banking RM owns the customer relationship end-to-end for most SCF products. Unlike the previous model, product specialists play a less proactive role, and are mostly called upon by the RM as needed. The client can also request the involve ment of the product specialist as required. Citibank is an example of an SCF provider who employs this approach.
  - **Leverage ratio:** 5–9 clients per RM. This ratio goes down to around 2:1 for MNCs (e.g., Wal mart, Coca Cola). Such a low leverage ratio is needed for MNCs and large corporates who re quire a high-touch and attentive approach from the RM.
  - **Hunter-farmer model:** This model is typically employed by smaller banks, and comes with in herent downsides. The model involves two sets of teams: business development professionals or "hunters," conducting cold calls to identify leads. Hot leads are subsequently passed on to "farmer" RMs to convert the client.
  - **Leverage ratio:** ~100 clients per RM.

RM-led coverage models are typically more effective in SCF sales. The hunter-farmer model may lead to client dissatisfaction due to the lack of a stable and continuous relationship with RMs and product specialists.

2.3 Onboarding

2.3.1 Best practice 5: Identify and prioritize strategic suppliers (reverse factoring-specific)

Supplier onboarding is one of the most important steps in an SCF program. The majority of SCF programs fail due to poor onboarding efforts. It is critical to strategically select the right suppliers at the outset and onboard them seamlessly.

There are three main criteria for selecting the initial set of suppliers:

- **Size:** From a financial institution's point of view, large suppliers are financially attractive in terms of SCF potential and cross-sell potential. These big suppliers are important to the buyer's supply chain and are more capable in being onboarded as well.
- **Financial health and strategic objectives:** Supplier selection require a deep understanding of the financial health benefits for suppliers from SCF. For example, suppliers with plans to undertake capital improvements would require immediate access to cash and would be easier to onboard.
- **Relationship with buyer:** Suppliers with strong, stable, long-term relationships with the buyer are easier to onboard, while a supplier with whom the anchor client has a strained relationship will be hesitant to be involved in a new SCF program. It is important to analyse the future potential of all suppliers; a client who might be a mid-tier supplier currently but is expected to become a major sup plier in the future should be categorized as a strategic supplier.

2.3.2 Best practice 6: Enlist the help of anchor clients in initial outreach and education of suppliers (reverse factoring-specific)

Once strategic suppliers are identified for the initial wave of onboarding, the anchor client must initiate the outreach program to onboard and educate those suppliers. This is the first touchpoint with those suppliers and can set the base for their acceptance of SCF. As shown in Exhibit 20, the outreach approach should be broken down into three stages:

- Anchor client conducts initial outreach: The anchor client has an established relationship with the supplier in place. It is important that anchors themselves conduct this step. Passing the initial outreach to a third party (the financial institution) could undermine the trust of the supplier.
- Financial institution provides tools and resources to support anchor in supplier outreach: The financial institution should provide the requisite support to anchors in their initial supplier outreach through relevant marketing material highlighting the benefits of SCF. Product specialists play a key role in developing marketing material, including case studies, templates, brochures and webinars.

- **Anchor client and financial institution educate suppliers in a tailored approach:** The financial institution and anchor client jointly lead the education of key stakeholders of strategic suppliers. The education approach varies across supplier segments:

    - **Top-tier suppliers:** A high-touch, highly personalized education approach is needed, with face-to-face meetings, stakeholder presentations, etc.
    - **Mid-tier suppliers:** A medium- to low-touch education approach is usually adequate, with phone campaigns and small group webinars.
    - **Low-tier suppliers:** A low-touch education approach is usually adequate, with email campaigns, SCF microsites and other techniques.

2.3.3 Best practice 7: Execute transparent and hassle-free supplier enrolment (reverse factoring-specific)

The end-to-end supplier onboarding process can determine the success of the overall SCF program. Unsuccessful SCF programs onboard only ~30-40% of suppliers, while best-in-class programs often reach ~60-70% or more.

Onboarding strategic suppliers can be done by either the financial institution itself, or outsourced to a third-party provider:

- **Financial institution-led:** SME banking RMs are deployed to enrol suppliers with a leverage ratio of around 10 suppliers per RM. This approach is ideal for financial institutions with a vast geographic footprint to ensure end-to-end ownership of supplier onboarding.

- **Third-party-led[2] :** Providers like Prime Revenue take end-to-end ownership of supplier onboarding process for a service fee. This is an ideal approach for financial institutions with a limited geographic footprint or limited resources.

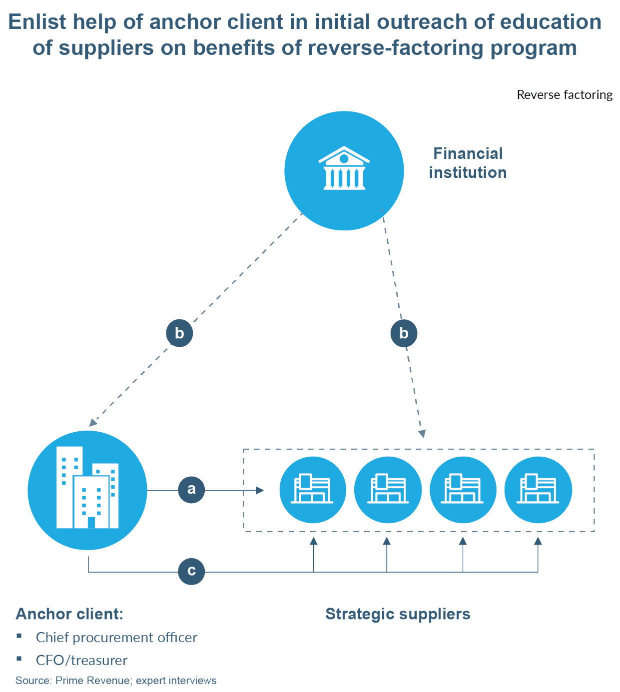


Exhibit 20: Supplier onboarding approach

Onboarding strategic suppliers can be done by either the financial institution itself, or outsourced to a third-party provider:

- **Transparency** and constant communication about processes and data requirements provide clarity to stakeholders on what is needed from them. Further, an easily traceable record of activities allows the supplier to meet any financial or regulatory requirements
- **Simplicity** and intuitiveness of process and tools to be used in the SCF program. Complex processes will discourage suppliers from engaging in SCF
- **Efficiency** and standardization of process should be in place. For example, fields should be pre-populated based on data already shared, and changes to fields should be replicated throughout the system. This helps avoid human error and reduce the manpower requirement. Standardization

[2] *Applies to both domestic and cross border programs*

also eliminates any burden some or delayed activities that might discourage suppliers from engaging in SCF

- **Flexibility** and willingness to accommodate unique supplier needs when they deviate from standardized processes are a key component of any SCF program. and ensure greater success in onboarding a vast variety of suppliers (as resources and capabilities of suppliers vary).

2.4 Organization and coverage model

2.4.1 Best practice 8: Build a team of product specialists, with RMs managing client relationships and assisting with supplier onboarding

It is essential that roles and responsibilities of the client coverage team are clearly defined. Broadly, the coverage team includes RMs and SCF product specialists (Exhibit 21):

- RMs:
  - RMs own and orchestrate the client relation ship (corporate RMs if the anchor is a large corporate; SME RMs if the target client is an SME), but are typically not experts in any specific product.
  - The RM initiates contact with existing/prospective clients to offer SCF products, support ed by SCF product specialists as needed.
  - SME RMs are tasked with helping onboard suppliers onto SCF programs. SME RMs can then leverage these newly established relationships to cross-sell other products.
- SCF product specialists: This team can be further divided into three sub-teams:
  - **Sales sub-team:** This team supports the RM in client segmentation and origination for anchor

Build a team of product specialists, with RMs managing client relationship and assisting with supplier onboarding

Reverse factoring

		Client segmentation and origination	Onboarding	Servicing
RMs	Corporate	Initiate client contact	Own **client relationship**	Own **client relationship**
RMs	SME		Assist with **supplier onboarding**	
Product specialists	Sales	**Identify leads** structure **products / proposals** Involved in **negotiations and deal closing**		
Product specialists	Onboarding / Implementation		**Provide tools and resources** to help create and execute **supplier outreach programs**	
Product specialists	Customer service			Assist clients with **special requests that deviate from automated process,** e.g. onboarding new suppliers

Exhibit 21: Specialised SCF sales team

clients. This involves industry, anchor client, and product selection based on the analyses dicussed in Best Practice 1. The product specialist sales team should build a deep under standing of the anchor client's supply chain needs to customize SCF offering.

- **Onboarding and implementation sub-team:** This team is tasked with creating and ensuring that supplier onboarding is well-managed and executed. The team develops marketing and educa tion material for strategic suppliers across different media, including webinars, case studies, presentations and emails.
- **Customer service sub-team:** This team man ages any supplier or anchor client requests that deviate from the automated processes in place. This could include resolving issues with the IT platform, onboarding new suppliers or removing current suppliers, dispute resolutions and other issues.

2.4.2 Best practice 9: Link RM and product specialist compensation to four KPIs

Financial institutions link RM and product specialist compensation to separate KPIs:

RM

- **Business origination:**
  - **Revenue/mandates won:** Number of new man dates/revenues won or registered. This measures the corporate banking RM's capability to get new clients on board.
  - **SCF opportunities identified and converted:** This is a measure of the corporate banking RM's capability in identifying potential leads (through industry selection and client segmentation) and conversion of clients to SCF.
- **Program utilization:**
  - Utilization of SCF credit line: Percentage of total credit line utilized by the client. This measures the effectiveness of the corporate banking RM in ensuring SCF revenue potential is maxi mized from each client.

Product specialist

- **Business origination:**
  - **Revenue/mandates won:** Number of new man dates/revenues won or registered. This measures the sales product specialist's capability in getting new clients on board.
  - **Percentage of tenders won:** Percentage of tenders that the sales team has won. This measures the effectiveness of the sales product specialist in converting leads.
- **Program implementation:**
  - **Time-to-onboard:** Duration of time it takes to onboard a pre-agreed percentage of suppliers. This measures the efficiency of the onboarding/implementation product specialist.
  - Percentage of suppliers onboarded (out of the total agreed with the anchor client): This measures the effectiveness of the onboarding/imple mentation product specialist
- Program utilization:
  - **Utilization of SCF credit line:** Percentage of to tal credit line utilized by the client. This measures the effectiveness of the sales product specialist in ensuring SCF revenue potential is maximized from each client.
  - **Number of invoices financed:** Total number of invoices that are financed from each supplier. This measures the effectiveness of the onboarding/implementation product specialist in maximizing SCF potential from each supplier.
  - **Customer service:** The overall experience of suppliers with the SCF program across their journey. This measures the effectiveness of on boarding/implementation product specialist and servicing product specialist across all their major client supplier-facing activities.
- Client impact:
  - Payment terms: Additional cash generation for the client through extension of payment terms. This measures the effectiveness of the sales product specialist in tailoring a solution that improves the client's financial health.

2.4.3 Best practice 10: Base revenue incentives for RMs and product specialists on booked or mirror/shadow accounting

Financial institutions develop appropriate incentives for the sales team. There are three recommended models for sales team incentives (Exhibit 22):

Multiple models exist for mandates & revenue incentives-best practice is based on revenue booked or mirror/shadow accounting

Recommended models

Mandates / revenue compensation models	Description		
Mandates won	• SCF mandate targets are set **top down** • RMs and product specialists get **awarded for mandates won**		
Booked revenue	• RMs compensated by **revenue booked** • Revenue is typically **booked based on target client**-Corporate if buyer-led, and SME if seller-led • *Under this scenario,* ***SME RMs could be compensated by service fees*** *for assisting in onboarding suppliers*	HSBC	Complexity
Mirror / shadow accounting	• Revenue gets **recognized for both Corporate and SME RMs,** who are awarded **shared bonuses** accordingly • ***Product specialist-specific metrics*** – *Sales team: based on estimated revenue from SCF mandate* – *Onboarding / implementation team: based on actual revenue booked*	Standard Chartered Deutsche Bank	

Exhibit 22: Sales team compensation

- **Based on SCF mandates won:** This is the least complex compensation model and is in part implemented by HSBC bank. SCF mandates are set top-down in this. The RM and product specialist get rewarded based on meeting or exceeding their top-down target for the number of mandates won. However, from an accounting standpoint it is inherently flawed, since revenue from the same mandate is double counted for the corporate banking and SME RM.

- **Based on booked revenue:** This model is slightly more complex and forms part of the compensation model that HSBC follows. Revenue is typically booked based on the target client. Corporate banking books the revenue if the SCF program is buyer-led and SME banking books the revenue if the SCF program is seller-led. Relevant RMs get awarded according to the revenue they have booked for their division (i.e., corporate vs SME).

- **Using shadow/mirror accounting:** This model is even more complex and is followed by banks like Deutsche Bank and Standard Chartered Bank. The revenue from any client gets recognized by both corporate banking and SME banking through shadow/mirror accounting. The relevant RMs are re warded through bonuses accordingly.

RM compensation models based on booked revenue and shadow/mirror accounting are best practice, since they overcome the flaw of the SCF mandates-based model with double counting of revenue.

In addition, there are two important compensation metrics employed for product specialist teams in SCF programs:

- **Sales product specialist:** Sales product specialists are compensated based on estimated revenue from SCF mandates. This incentivizes them to target clients with high SCF potential and cross-sell multiple products to established SCF clients.

- **Onboarding/implementation product specialist:** On boarding/ implementation product specialists are compensated based on actual revenue booked from each SCF mandate. This incentivizes them to ensure the potential for each SCF mandate is met.

2.5 Credit and risk

2.5.1 Best practice 11: Follow three key risk mitigation measures—anchor assessment, supplier selection (specific for reverse factoring) and robust monitoring

Unlike conventional credit risk, SCF credit risk focuses not just on the balance sheet of the supplier but also on supplier-buyer relationship duration, dilution rates, importance of supplier etc. Hence, it is important to educate the specialized risk management team on the approach towards handling SCF product risks.

Risk management practices are a major part of any SCF program. There are five major types of risk in SCF (as shown in Exhibit 23):

- **Anchor risk:** Encompasses the risk associated with the anchor client for the financial institution.

  - **Anchor risk:** Encompasses the risk associated with the anchor client for the financial institution.
  - **Dilution risk:** This includes any situation that may reduce the value of out-standing invoices, other than default by the debtor, e.g., return of goods, commercial dispute on goods, etc.

- **Spoke risk:** Encompasses the risk associated with the spoke for the financial institution.

  - Credit risk: This includes the risk that the spoke defaults on contractual obligations to the bank by failing to make payments. This type of risk is typically less relevant for SCF, as products are based on the credit risk of the large anchor.
  - Performance risk: Risk that the spoke/supplier fails to meet obligations to the buyer (e.g., issues with manufacturing or shipping goods, providing services in a timely fashion and according to agreed quality standards). This will lead to the spoke being unable to make the payment to the financial institution.

- **Fraud risk:**

  - **Double financing:** The same receivable is used to get a loan from two financiers, which can lead to a conflict on the assignment of the un derlying receivable.
  - **Fake invoices:** The sharing of forged invoices with financial institution for financing.
  - **Collusion between buyer and seller:** Collusion between buyer and seller that leads to diversion of funds from meeting maturity obligations.
  - **Diversion of funds**: The diversion of funds borrowed for other purposes (such as financing the growth of the business in other directions) rather than repaying the financing.

- **Country risk:**

  - The risk of political and economic unrest that will negatively impact SCF assets in that country (only specific to international transactions. This is especially important for emerging markets with unstable governments.

SCF entails anchor/spoke risk, and fraud risk-mitigated through anchor credit approval, supplier selection, and robust monitoring

Risk type		Description	Mitigation measures
Anchor	Credit risk	▪ Risk that **anchor defaults** on contractual obligations to supplier / bank by failing to make payments ▪ **Credit risk of the anchor** is the **economic basis** for most SCF products	**Credit-approval process:** ▪ Standard credit-approval process for anchor / spoke (depending on SCF product)
	Dilution risk	▪ Any situation that may **reduce value of out-standing invoice,** other than default by the debtor, e.g. returns, commercial dispute, etc.	
Spoke	Credit risk	▪ Risk that **spoke defaults** on contractual obligations to bank by failing to make payments ▪ This is typically **less relevant for SCF**, as **products are based on credit risk of large anchor**	**Spoke-selection process:** ▪ Supplier is evaluated in light of buyer's profile / relationship, e.g. strategic importance to buyer, relationship duration, etc. ▪ This can typically be done by reviewing anchor's data on suppliers
	Performance risk	▪ Risk that **spoke / supplier fails to meet obligations to the buyer,** i.e. issues with manufacturing or shipping goods, providing services in a timely fashion, and according to agreed quality standards	
Fraud and other risks		▪ **Various fraud risks** including double financing, fake invoices, collusion between buyer and seller, diversion of funds, etc. ▪ **Other risks** includes country risk (in case of international trade), portfolio / product risks	**Robust monitoring system:** ▪ Early warning system (EWS) to monitor product / portfolio, and anchor / spoke

Unlike conventional credit risk, SCF credit risk focuses not just on the balance sheet of the supplier but also on supplier-buyer relationship duration, dilution rates, importance of supplier etc.

Exhibit 23: Credit & Risk

- **Product portfolio risk:**

  - The risk that the client portfolio or prod-uct portfolio crosses the minimum threshold for bad debts, leading to lower recovery for financial institutions. This can happen due to a sudden downturn in performance of clients.

- **There are three major mitigation practices to over-come these risks:**

  - Develop a standard credit approval processs for the anchor and spokes. This ensures credit is not granted to anchors with the potential for credit and dilution risk. For this end-to-end credit due diligence, financial institutions can enrol the services of a credit-rating bureau to get better visibility into the anchor or spoke's credit rating.
  - Develop a robust spoke-selection process where the spoke is evaluated based on the an-chor's profile and relation, e.g., strategic imp-ortance to the anchor and relationship duration. This can typically be done by reviewing the an chor's data on suppliers.
  - Design a robust monitoring system. Specifical-ly, an Early Warning System (EWS), that em ploys rule-based triggers (highlighted in Exhi-bit 24). The system sends alerts when there are signs of increased risk across three major areas:

    - **Product level:** Includes product portfolio loss-es—an alert is sent when the product portfolio losses rise above the targeted share of total out standing.
    - **Anchor level:** Includes anchor's credit rating, supplier/buyer limits, good rejection rates, an alert is sent when the anchor exceeds the credit **limit**.

Early Warning System can be developed to proactively monitor the quality of SCF programs

Level	Signs of increased risk	Mitigation
Product level	▪ Portfolio losses above **targeted share of total outstanding** (e.g., >2%) ▪ Portfolio losses above budgeted provisions	▪ Review product/program ▪ Consider discontinuation
Anchor level	▪ Decrease in **anchor's credit grade** (reverse factoring)	▪ Review **conditions of anchor's SCF program** ; consider exit/freeze
Anchor level	▪ Suppliers/buyers **limit reached**	▪ Increase or freeze the limit
Anchor level	▪ **Termination of relationship** with anchor initiated by the bank (especially for credit reasons)	▪ Exit exposure to suppliers/ buyers
Anchor level	▪ Substantial **share of suppliers/buyers (e.g., >20%)** of the same anchor placed on workout list (issues list)	▪ Review **exposure** ; adjust conditions
Anchor level	▪ Buyer finance (reverse factoring): increased number of **goods rejection/returns due to low quality** (e.g., 2+ buyers/months) ▪ Buyer finance (reverse factoring): 2+ **buyers overdue >60 days** simultaneously	▪ Review buyer finance program for the anchor: **exit or justify continuation**
Buyer/supplier level	▪ Supplier/buyer is overdue by >30days >3 times/year ▪ **Goods rejected/returned** once or more in a quarter	▪ Review continuation of the program for particular buyer/supplier
Buyer/supplier level	▪ For international program – Substantial **share of buyers/suppliers** in a country (e.g., >20%) is on workout list (issues list) – **Cumulative exposure** to buyers/suppliers in a country reached the country limit	▪ **Review the situation** ; consider exit on the country level or justify continuation ▪ Potentially **modify the program for** the particular country ▪ **Freeze or extend the limit**

Exhibit 24: Early warning system (EWS)

Buyer/supplier level: Includes good rejection rates, share of clients in a specific country, etc. an alert is sent when the supplier's rejected goods cross threshold.

2.6 Technology

2.6.1 Best practice 12: Ensure the SCF IT platform has key functionalities

An integral part of any SCF program is the underlying IT platform that is deployed. It is the inherent capability of this IT platform that differentiates SCF from other trade finance products, offering swift financing with limited human touch. There are eight key features of a 'best practice' technology platform for SCF:

- **Order management**: Order management allows buyers and suppliers to initiate and manage various process and define different workflows. For example, a PO can seamlessly be created and uploaded into the IT platform accessible to the financial institution.

- **Document management:** Document management enables document production, matching, and distribution in a central, secure location. For exam ple, the invoice can be generated automatically in the system after the order has been received and shared with the financial institution for financing.

- **E-invoicing:** This enables digital entry of an invoice into the ERP which has a direct impact on the po tential scalability and applicability for SCF products. Processes that usually relied on paper can be completed instantaneously.

- **Payment execution:** Payment execution enables opening, maintaining and closing accounts. It also provides interfaces between clients and back-office bank systems.

- **Payment tracking:** This allows tracking of payments from initiation through clearing and settlement by invoice. It also provides a real-time payment status update to all stakeholders.

- **Logic and control:** Offers the capability to set logic and controls for financing. For example, ability to set rules for:

  - Financing particular suppliers based on salient features like importance to buyers, size, etc. For example, a supplier who meets a minimum threshold in terms of revenue can auto matically get financed when an invoice is up loaded into the system.
  - Financing individual invoices based on ticket size or due date. For example, an invoice that meet the minimum threshold in terms of value, automatically gets financed when it is uploaded into the system
  - Managing risk that can negatively impact the overall portfolio. For example, by sending an alert when there is double financing or the PO limit has been exceeded.
  - Designing variable limits. For example, interest rates and fees based on supplier/invoice characteristics. Top-of-the-line platforms offer dynamic fees for individual invoices based on the stage of approval. For example, lower fees are offered for approved invoices as they are less risky for the financial institution and higher fees offered for riskier unapproved invoices.

- **Visibility:** This feature provides visibility across stages to all stakeholders through alerts. For example, alerts are sent out the supplier, buyer and financial institution when a new invoice has been approved for SCF financing.

- **Integration with ERP:** This involves the integration of the SCF IT platform with back-end ERP systems of suppliers, buyers and banks. This provides ease in fully utilizing the capabilities of the IT platform as it gets access to and tracks all the relevant data for SCF within the organization.

2.6.2 Best practice 13: Leverage existing SCF platforms instead of building from scratch

After understanding the main capabilities required from an SCF IT platform, the next challenge is to deploy it. Financial institutions have three approaches to deploying an SCF IT platform (Exhibit 25):

- **Develop proprietary system:** The financial institution can develop its own platform internally from scratch, or purchase software license from an external vendor.

  - **Advantages:** Developing a proprietary platform helps increase client retention as compared to third-party platforms like Prime Revenue which operate like a marketplace. Further, it allows a financial institution to fully leverage its own brand equity with no external touch points undermining it. It also ensures the financial intuition has complete control on the legal framework for its proprietary platform as com pared to third-party platforms which can be restrictive.
  - **Requirements:** In terms of requirements, this approach requires a sizeable scale to justify the heavy upfront investment. Further, a global footprint is required that covers the entire supply chain of the client since there is no third party involved. Also, a sizeable SME banking sales team is required to onboard suppliers globally.
  - **Example:** JP Morgan developed their own proprietary platform called the APAR platform that handles end-to-end discounting solutions for suppliers.

- **Outsource/White label:** Financial institution can procure a technology solution from external vendors/global financial institutions (e.g., Prime Revenue, Demica, etc.).

Outsourcing/white labeling is an efficient and hassle-free method to deploy SCF IT platform

Recommended model

	A Develop proprietary system	B Outsource / White label	C Hybrid platform
Description	▪ **Develop own platform internally** from scratch, **or** purchase **software license**	▪ Deploy technology solution from **external vendors/global banks**	▪ **Combine a proprietary system and open system(s)** to complement offering to clients
Advantages	+ Increase **client stickiness** + Fully **leverage own brand equity** + Full **control of legal framework**	+ Allow **flexibility/scalability** to serve global supply chain programs (through partner's broader footprint) + Increase **speed-to-market** + Ability to **rely on partner** help onboard spokes	+ Allow banks to both **capture volume** with readily available open systems and **push own solution** for newcomers
Requirements	▪ **Large volume/scale** to justify investments ▪ **Global capabilities/ footprint** to cover clients' full supply chain ▪ **Large sales team** to market and deploy solutions at spokes	▪ *NA*	▪ *Same as option A*
Example providers	JPMorgan	DEMICA PR PrimeRevenue	BMO Capital Markets citibank ORBIAN

Exhibit 25: Archetypes for SCF it platform deployment

- **Advantages:** This approach allows flexibility and scalability to serve global supply chain programs (especially relevant to local/regional financial institutions). Further, it increases speed-to-market since this IT platform does not need to be developed in-house. External vendors also help with the onboarding of suppliers and save financial institution's resources.
- **Requirements:** Since an external vendor is taken onboard to run the IT platform, this approach can even be followed by financial institutions with limited scale/volume.
- **Example:** Demica and Prime Revenue are two major examples of third-party providers that offer SCF IT platforms. These companies also help financial institutions in developing marketing material and reaching out to suppliers for onboarding.

▸ Hybrid platform: This approach is a combination of a proprietary system and open system(s) to complement offerings to clients through various value offerings.

- **Advantages:** This approach allows financial institutions to capture volume with readily available open systems and push their own solution to new suppliers through the open platform.
- **Requirements:** This approach requires a sizeable scale to justify the heavy upfront investment. Further, a global footprint is required that covers the entire supply chain of the client since no third party is involved. Also, a sizeable SME banking sales team is required to onboard suppliers globally.

- **Example:** Citibank and Bank of Montreal have deployed the hybrid approach. Both these banks have developed their own proprietary platforms and are also leveraging the Orbian platform to target a wider customer base.

Outsourcing/white labelling is the preferred model for financial institutions in emerging markets deploying SCF for the first time. This is because most financial institutions in these markets do not have sufficient volume/scale to justify a proprietary platform

Chapter 3 Pakistan Supply Chain Finance market-sizing

Although there has been considerable research on the attractiveness of supply chain solutions, there is scant information available on the market size. There are various reports estimating the market size through different methodologies. In their 2015 World Supply Chain Finance Report, BCR Publishing estimated that SCF funds in use amounted to EUR 37–49 billion (based on their survey of SCF practitioners in Nov–Dec 2014). Similarly, an ACCA report estimated the market size for reverse factoring at USD 255–280 billion while McKinsey mentions USD 2 trillion of 'financeable highly secure payables globally' with current SCF revenues of USD 2 billion and a potential revenue pool of USD 20 billion.

To accurately size Pakistan's supply chain financing market, a comprehensive seven-step market-sizing methodology was used. First, industries that were conducive to supply chain financing were employed, eliminating services industries and sub-industries. Second, the cost of goods sold (COGS) was aggregated for both public and private companies in Pakistan. This was a challenge as only ~500 companies list their data publicly. Third, the overall COGS number for Pakistan was split for large corporations and SMEs. The assumption was that large corporations normally serve as the market for reverse factoring as they seek to stabilize their supply chains while SMEs constitute the market for other receivables and loan-based

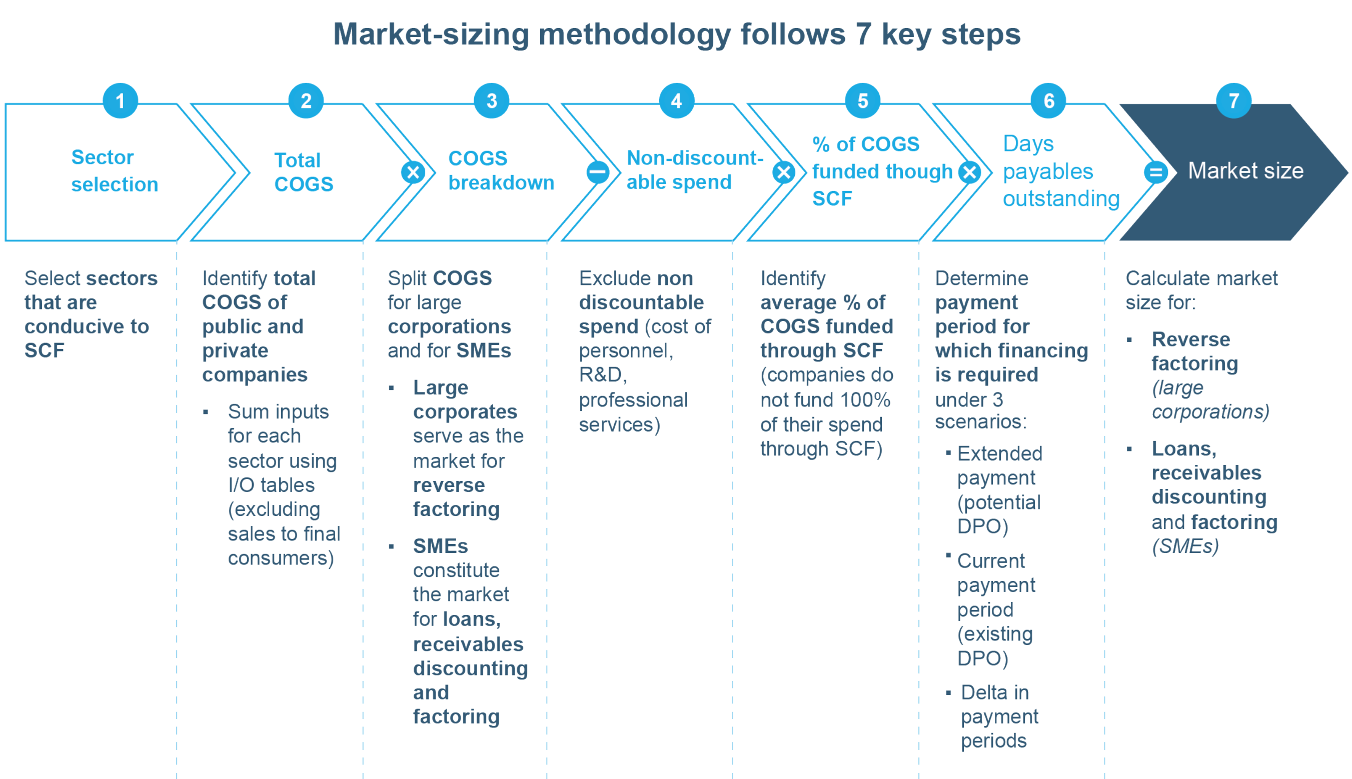


Exhibit 26: Market-sizing methodology

products as they seek access to financing. Further, a series of multipliers were applied to the COGS for each company type to get to the overall market size for Pakistan. These include removing non-discountable spend (cost of personnel, R&D, professional services) and factoring in average percentage funded through supply chain financing programs. Lastly, the market was sized based on the payment periods required for each type of industry (Exhibit 27).

Based on the market-sizing methodology, Pakistan has an overall supply chain financing market potential of around USD 18-20 billion. A sectoral breakdown of the market reveals that 80% of the value is captured by three sectors that include materials (19%), consumer durables and apparel (19%) and food, beverage and tobacco (39%). A product split reveals that 60% of all market potential comes from reverse factoring while 40% is made up from other receivables and loan-based products.

Pakistan currently has a market potential of USD 18-20 bn in SCF assets with ~80% of the opportunity in food, materials, and consumer durables

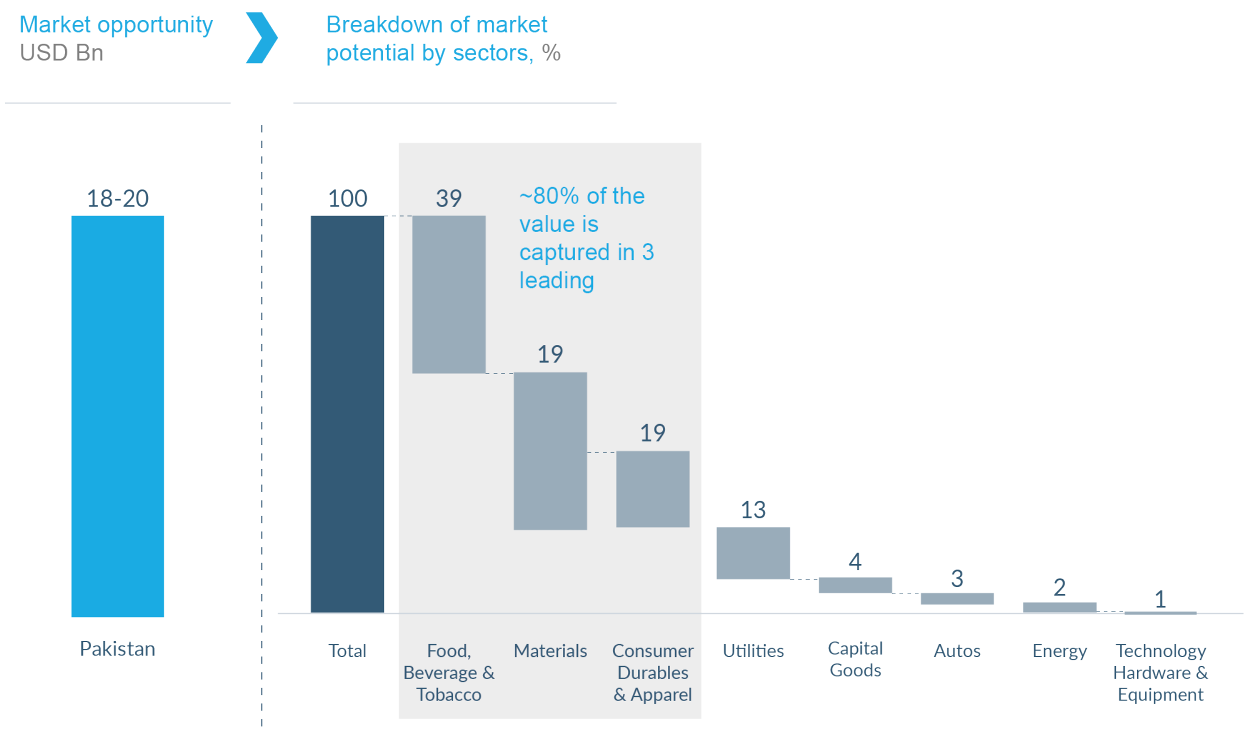


Exhibit 27: Market size for Pakistan (1/2)

~60% of the market potential comes from reverse factoring while 40% comes from other receivables purchase and loan-based products

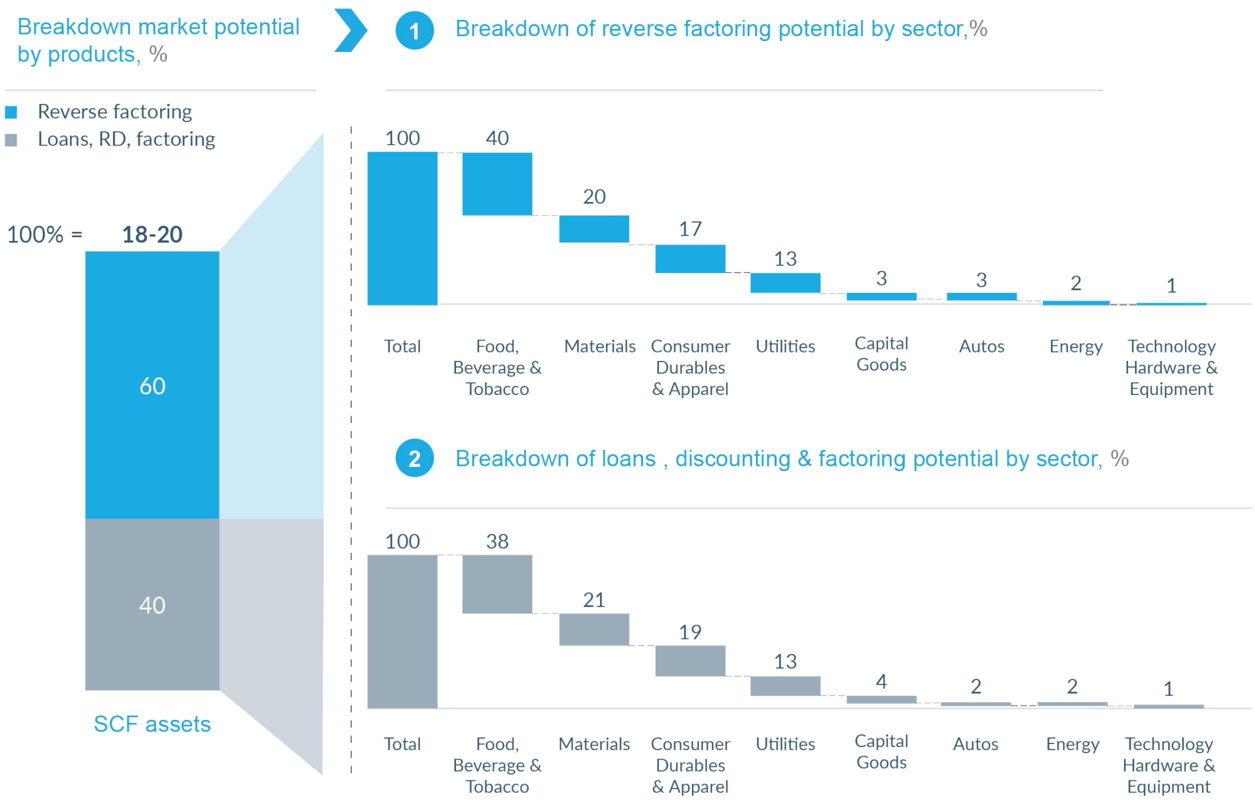


Exhibit 28: Market size for Pakistan (2/2)

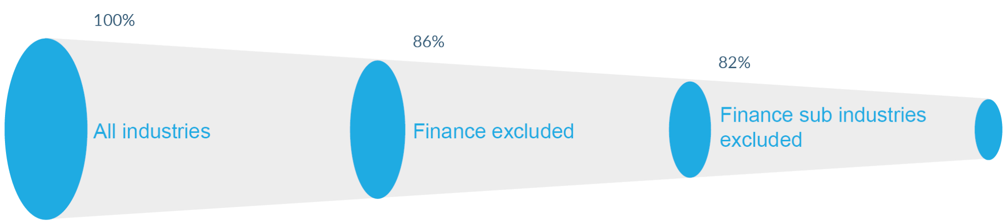
3.1 Calculations for market sizing

To calculate the overall market potential for supply chain financing assets in Pakistan, a seven-step approach was followed. This approach was utilized to calculate both the reverse-factoring potential and the potential for other receivables and loan-based products. The final market size was calculated as an aggregation of the two numbers. The rationale behind each of the seven steps is summarized below:

- **Selecting suitable industries:** To identify the asset size for SCF assets, the first step was the selection of suitable industries for supply chain financing. This meant excluding industries such as financial services, media, consumer services, commercial and profession services, software and services as service-related industries tend to be less suitable for supply chain financing. Industries were chosen for market sizing based on consultation with do main experts.

- **Identifying total cost of goods sold for public and private companies:** Within suitable industries, the total cost of goods sold was calculated for both public and private companies. This yielded the universe of assets (both eligible and ineligible) for supply chain financing within Pakistan. Identifying the total COGS for Pakistan was a major challenge as only 575 companies have listed their data in public records. This leaves out most private companies in Pakistan that do not publish their data in public records. Instead, GTAP's Input-Output tables were utilized to calculate the COGS for

Largely service-related industry subsectors are less suitable for SCF



Industries	Excluded industries	Excluded subindustry
1 Consumer discretionary		a Media b Consumer services
2 Consumer staple		
3 Energy		
4 Financial	4 Financial	
5 Healthcare		
6 Industrials		c Commercial and professional services
7 Information technology		d Software services
8 Materials		
9 Utilities		

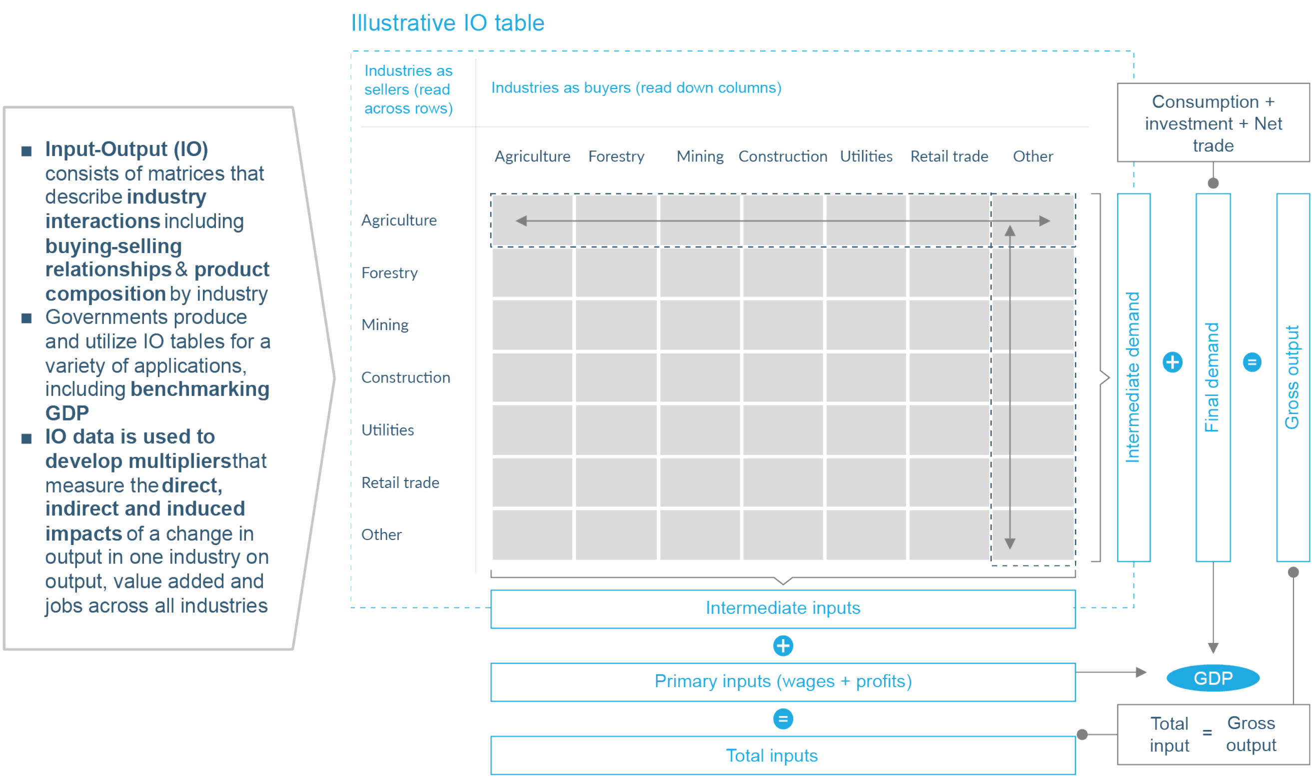
Source: Capital IQ

Exhibit 29: Selection of industries

public and private companies in Pakistan. **Input-Output**[3] **(IO)** consists of tables or matrices that describe **industry interactions** including **buying-selling relationships** and **product composition** by industry.

As GTAP IO tables for Pakistan are only as recent as 2014, gross output growth projections between 2014-2017 from IHS Market Forecasts were used to linearly extrapolate the IO tables for 2017. This was possible since industry composition remained more or less the same for Pakistan during those years. The latest IO table was used to add inputs for each sector to yield overall COGS for both public and private companies in Pakistan (Exhibit 30)

Input-Output tables were used to calculate COGS for public and private sector in Pakistan



Source: GTAP IO Tables, Expert interviews, Team Analysis

Summing inputs for each sector (excluding sales to final consumers) yields COGS for the economy

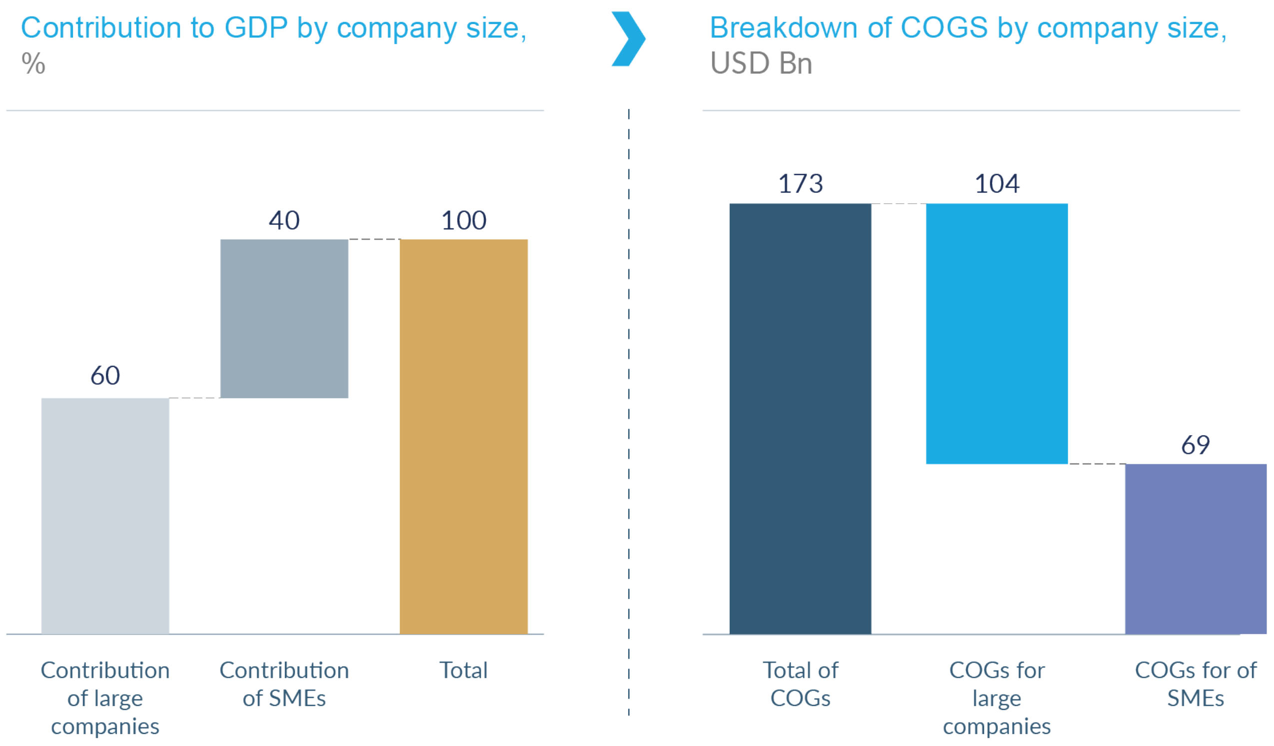
Exhibit 30: Calculating COGS for public and private companies

[3] *Governments typically produce IO tables and use them to benchmark GDP, among other applications*

- **Breaking down cost of goods sold by company size:** Typically, large companies make up the market for reverse factoring. This is because the anchor client must have scale as finance companies get involved only when the factoring opportunity is sizeable. Large companies utilize reverse factoring to stabilize their supply chain by helping suppliers improve as opposed to raising capital. SMEs, on the other hand, constitute the market for other receivables and loan-based products. This is because the products require less credit history as collateral is involved. Moreover, it provides a much need means to access finance for SMEs.

To divide the overall COGS number by company size, GDP contributions were used as a proxy due to lack of availability of data. SMEDA[4] estimates the contribution of SMEs to overall GDP is around **40%** with large companies assumed to contribute the remaining **60%**. This split was used to divide COGS between large companies and SMEs in Pakistan (Exhibit 31).

GDP contributions were utilized to break down COGS by company size



SMEDA[4] provides contribution of SMEs to the overall GDP (~40%), contribution of large companies is assumed to be the remaining 60%

Source: GTAP IO Tables, Expert interviews, Team Analysis

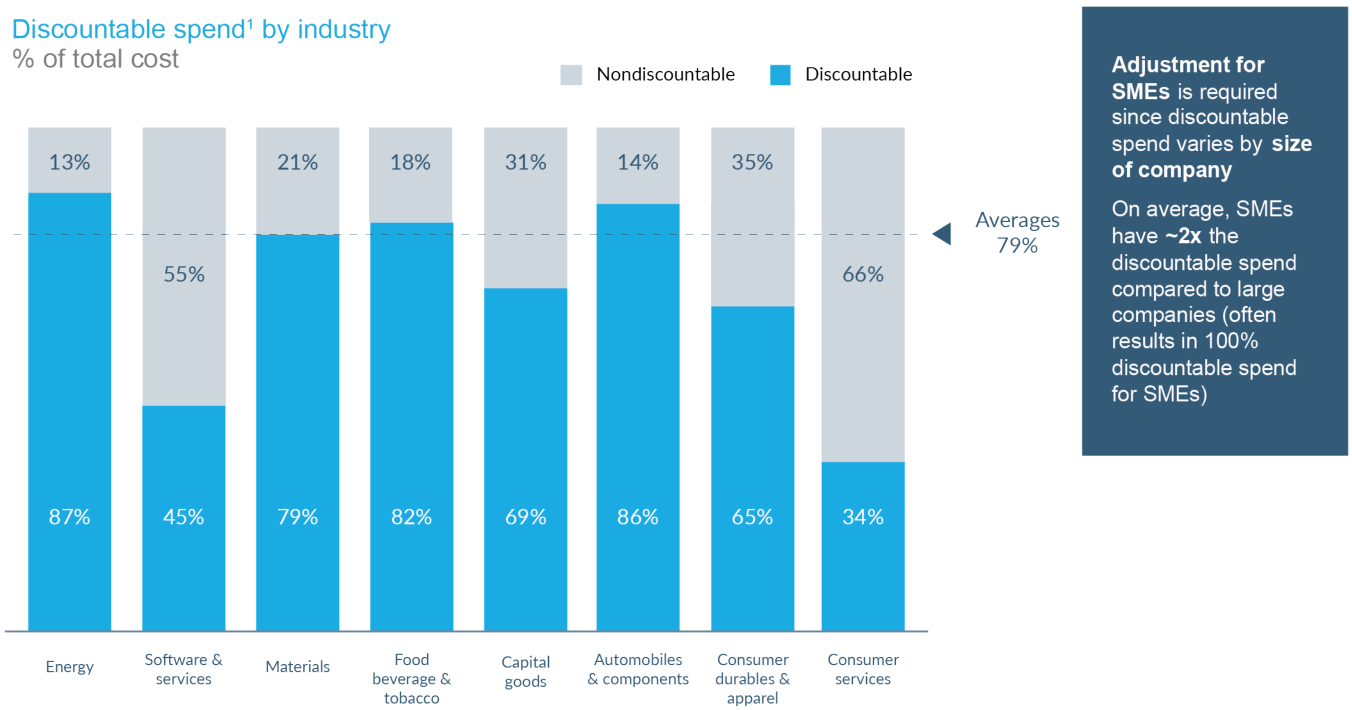
Exhibit 31: Breakdown of cogs by company size

[4] Small and Medium Enterprises Development Authority is an autonomous institution of the Government of Pakistan under Ministry of Industries and Production

- **Excluding non-discountable spend:** Normally, cost on material goods and services can be potentially financed through supply chain financing. This means excluding non-discountable spend such as cost of personnel, R&D and spend on professional services. For each industry, data from public-listed companies was utilized to identify the **percentage contribution of raw materials to COGS** for a company on average. This was termed 'discountable spend'. While this varied from industry to industry, the overall weighted average was calculated to be around 79% for the economy (Exhibit 32).

An adjustment for SMEs was required since discountable spend varies by **size of company**. On average, SMEs have about twice the discountable spend compared to large companies (often resulting in 100% discountable spend for SMEs).

Discountable spend varies across industries and is ~79% on average



1 % contribution of raw material cost to COGS
Source: IFC data of public companies, Orbis, Team Analysis

Exhibit 32: Discountable spend across industries

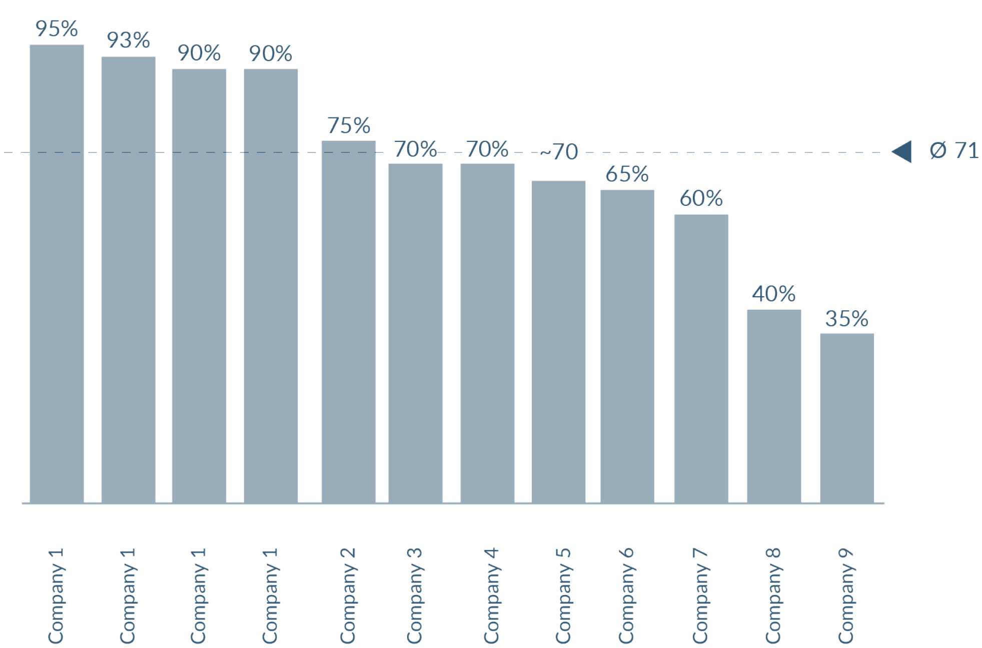
- **Identifying average percentage of COGS funded through SCF:** Out of the eligible spend for SCF, only a certain percentage is funded through SCF. This is a result of both demand- and supply-side issues. Normally, factoring involves a **~5%** fee and many firms prefer to be flexible in their funding and factor as per their requirement. Financial in stitutions may at times choose to finance a portion of assets depending on their risk appetite. This step accounts for the fact that 100% of eligible spend is rarely funded through SCF.

The average percentage of COGS funded through SCF is estimated to be ~70% across industries. This is empirically estimated through an analysis of mature supply chain financing programs (running for at least three years). A constant view was taken across industries as **once a program has been set, utilization is driven by operational efficiency** that is idiosyncratic to a given company, rather than a structural factor attributable to an industry (Exhibit 33).

Average % of COGS funded through SCF is estimated to be ~70% across industries

Utilization rates for mature SCF programs[1]

% of implied SCF assets



- **Unweighted average utilization is ~71%** for mature programs (after 3 years)
- We take a constant view across industries as we believe that **utilization, once a program has been set, is driven by operational efficiency** that is idiosyncratic to a given company, rather than a structural factor attributable to an industry
- **Implies a limited upside** by increasing utilization in mature programs

1 Industries that these companies were in included Pharmaceuticals, Biotechnology and Life Sciences, Household and Personal Products, Technology Hardware and Equipment, Consumer Durables and Apparel, Retailing, Materials

Source: Expert interviews

Exhibit 33: Average % of COGs funded through supply chain financing

- **Determining average payment periods (Days Payable Outstanding):** The final step determines the duration for which eligible SCF assets need to be financed. Capital IQ uses data from public-listed companies to identify DPOs across industries for different countries. DPOs for Pakistan were benchmarked against 20 different countries that included Australia, Bangladesh, Canada, China, Egypt, France, Germany, India, Indonesia, Japan, Malaysia, Morocco, Nigeria, Philippines, Singapore, South Korea, Spain, Srilanka, Turkey, UAE, UK, US and Vietnam. To size the market, it was assumed that implementation of supply chain financing programs would improve current DPOs and shift them to the upper quartile (75^{th} percentile in benchmarks) for each industry. This resulted in an increase in average DPOs from **~24 to 71 days** (Exhibit 34).

An adjustment for DPOs was required for SMEs as they typically tend to have shorter DPOs. On average, there is an adverse differential of **23%**[5] in DPOs of an SME compared to a large company.

Average DPOs for buyers could potentially rise from ~24 days to ~71 days upon enrolment in an SCF program

Average DPO before and after SCF program, Days

Industry group	DPO across sectors for Pakistan	Best in class[1] DPO across sectors	Delta
Total	24	71	47
Media	96	106	10
Retailing	80	66	-14
Consumer Durables & Apparel	43	74	31
Automobiles & Components	39	82	43
Consumer Services	20	81	60
Food, Beverage & Tobacco	30	63	33
Energy	51	87	36
Pharmaceuticals, Biotechnology & Life Sciences	47	95	48
Capital Goods	50	93	43
Materials	29	74	46
Real Estate	4	110	106
Telecommunication Services	53	108	55
Utilities	67	106	38

- Adjustment for DPOs will be required for SMEs as they typically tend to have shorter DPOs
- An adverse differential of 23% in DPOs of an SME compared to large companies

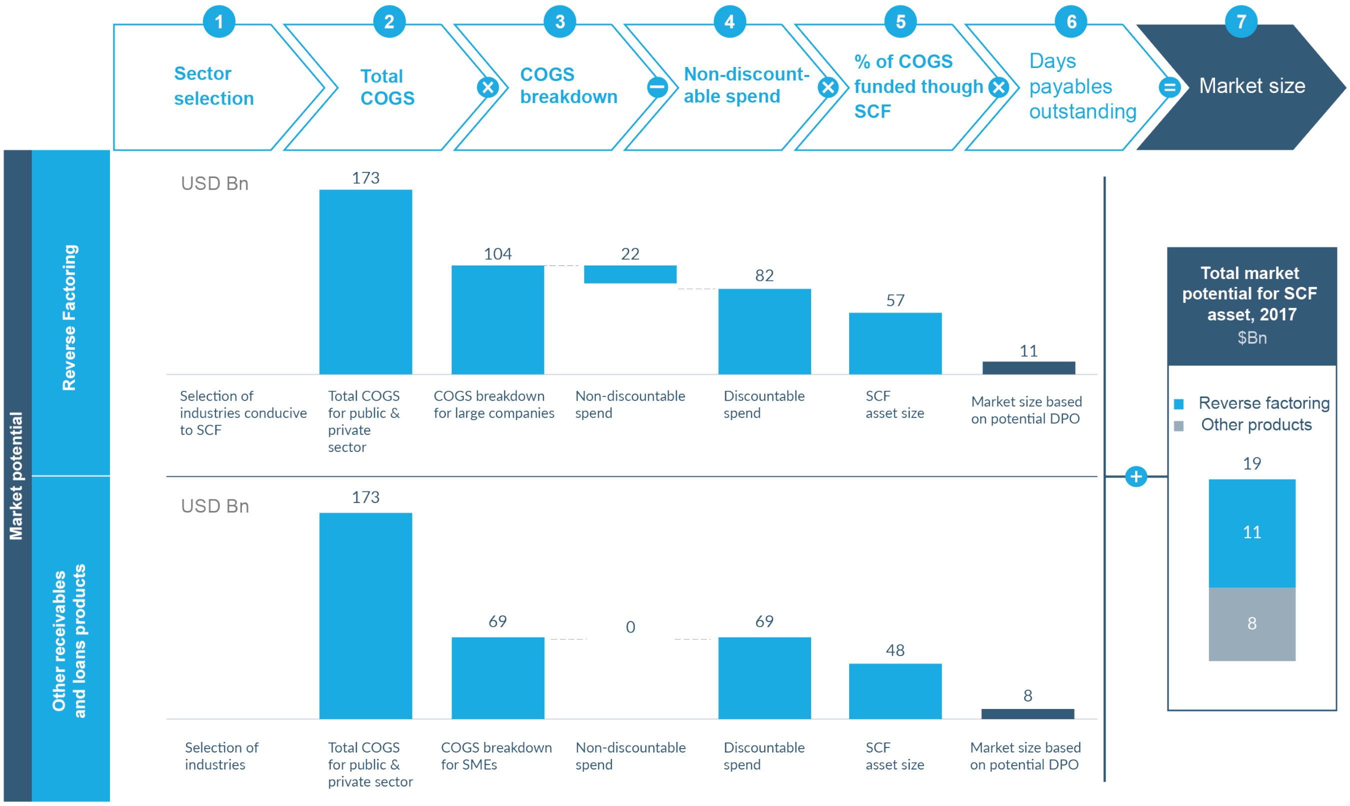
1 Based on 75th percentile of highest possible global DPO

Source: Capital IQ, EY's Capital Agenda Insights 2011, Team Analysis

Exhibit 34 : Average payment periods for supply chain financing

[5] *Based on EY's Capital Agenda Insights 2011 report*

Pakistan market potential for SCF assets is estimated at USD18-20bn



Source: Capital IQ, Expert Interviews, Team Analysis

Exhibit 35 : Market-sizing methodology

Chapter 4 Case studies

4.1 SCF Programs

Citibank case study (1/2)

Citi® Supplier Finance

SCF platform with global footprint and regional, on-the ground enablement resources

- **History:** 11+ years of experience with strong commitment from senior management
- **Footprint:** programs in 64 countries; active suppliers in 81 countries participating in over 850 supplier finance programs
- **Onboarding:**
  - **Dedicated supplier onboarding teams in 16 cities globally,** able to speak multiple languages and supplemented by client teams in more than 100 countries
  - **Onboarding approach:** Citi employees train buyer employees + a joint team of Citi IT and SCF experts and buyer IT and supply managers visit suppliers to enhance onboarding
  - **Customized solutions** (e.g., supported building of a supplier consortium in India and China for small suppliers)
- **Success:** 500+ major programs with >$500M in revenues; individual programs in advanced markets (e.g., Netherlands) yield up to €1-2M in revenues per year

Citi provided a highly flexible solution to meet our and our suppliers 'needs
Global MNC in consumer goods

Citi offered the most advanced and stable SCF solution among all the banks we looked at
Global MNC in technology

Exhibit 36 : Citibank case study (1/2)

Citibank case study (2/2)

	citibank	Benefits
Deep industry knowledge	▪ Global corporate bank with **strong offering and relationships,** e.g., in cash management and trade finance, **across regions and industries**	▪ **High network effect** based on existing relationships ▪ **Targeted pitches** with case examples **for buyer specific supplier base**
Global coverage	▪ Servicing of corporate clients in **more than 100 countries globally** ▪ **3 hubs for commercial onboarding** – Americas: NY, USA – Asia: Penang, Malaysia – EMEA: Dublin, Ireland ▪ **Documentation/processing hub in India**	▪ Global setup with hubs ensures **specialization and in-depth know-ledge** of the market, **e.g., through support of local trade finance staff** ▪ Sufficient scale to cover short-term peaks in supplier onboarding after winning a large mandate
Language support	▪ **Language capabilities** include English, French, Spanish, Italian and Portuguese covered (e.g., covered by 5 multi-lingual FTEs in EMEA) ▪ Potential **gaps are bridged by** reaching out to **local corp. banking sales** people (support from junior sales staff) ▪ Additional language skills can be added to the hub, if required on a recurring base	▪ **Targeted support** for the onboarding of suppliers in all major regions

Exhibit 37 : Citibank case study (2/2)

Puratos' reverse factoring program case study

BBVA Puratos
o seu parceiro para a inovarao

Context	Approach

- Puratos is an **international group with subsidiaries in 70 countries**, specializing in the production of ingredients for bakery, chocolates, cake mixes and patisserie

Objective

- Puratos wanted to launch a **reverse factoring program for the suppliers in US and South America** to extend their own DPO and reduce the cost of financing for their suppliers

- Undertook a **partnership with BBVA** (vast experience in supply chain finance programs globally) to launch the reverse factoring program
- The program was **broken-down into two phases**, to ensure hurdles from the first phase are proactively overcome and the program is scaled-up in the second phase without many road-blocks
- The first phase was initiated in May 2017, with a **pilot for a group of seven of their top suppliers**. Only the top suppliers were chosen for this program because they would be open to work with Puratos on this new program and more importantly would be open to sharing learnings to improve the program
- After the learnings from the first phase were incorporated, the **second phase of the program was launched with a focus on scaling-up the program** to onboard suppliers across the US and South America

Exhibit 38 : Puratos case study

Siemens' reverse factoring and distributor financing program case study

Context	Approach

- Siemens is an international group with **100 subsidiaries across 115 countries.** Its product range spans power and gas, turbines, compressors, renewable energy and building technologies
- Siemens' sourcing is concentrated largely in just two countries, **Germany and the US** (account for ~50% of procurement volume)

Objective

- Siemens wanted to launch a **comprehensive supply chain finance program offering reverse factoring and distributor financing** to its suppliers and distributors respectively

Approach

- Undertook a **partnership with Siemens Financial Services** and used the **Orbian platform** to launch reverse factoring and distributor financing program
- The group started with **reverse factoring for tier 1 suppliers** in 2008
- Afterwards the program was expanded **to reverse factoring for tier 2 suppliers** and then towards **distributors** as well
- One of the key success factors of the SCF program was the speed of invoice approval. The **company approves – or rejects – invoices within an average of just eight days**, using platform pioneer Orbian for the electronic transmission of payment instructions
- Another success factor, was that the **supplier never has recourse to Orbian**, so the relationship is strictly between the supplier and Siemens

Exhibit 39 : Siemens case study

Luxottica's reverse factoring program case study

Context	Approach

Context

- Luxottica is the world's **largest eyewear producer and distributor** famous for many well-known brands e.g RayBan
- Their first SCF program was launched in 2012 but **failed as the interest rate environment changed** and the company was not able to renegotiate the discount rates

Objective

- Luxottica wanted to launch a **reverse factoring program for its suppliers** to lower their financing rate and optimize working capital

Approach

- The target for Luxottica was to use a single bank for each global supplier to simplify the onboarding and program management, but Luxottica finally **settled on two banks for each supplier**
- **Suppliers were segmented according to spend**, with a different approach taken for each segment:
  - **Wave 1** of the program **covered incumbent suppliers**. This wave was speedy as this group already familiar with the previous SCF program
  - **Wave 2** targeted **small-to-medium suppliers with medium/high spend** who requested early payment; and involved a more customized and collaborative approach
  - **Wave 3** covered **large suppliers with medium/high spend**. This wave was heavily controlled by Luxottica as more resources were required
- **Key success factors:**
  - **Strong collaboration between procurement and finance** to drive this program.
  - **Expertise that banks brought** to the table in combination with **the good relationship that Luxottica had with its suppliers**

Exhibit 40 : Luxottica case study

Conagra Brands' reverse factoring program case study

Context	Approach

- Conagra Brands, Inc. is a North American **packaged foods company** that produces products under various brand names that are available in supermarkets, restaurants, and food service establishments

Objective

- Conagra Brands, Inc. wanted to launch a **reverse factoring program for the suppliers** to achieve $300m of working capital benefits which would help enable the company to realize their strategic goals

- Chose to **partner with Prime Revenue to launch SCF program** due to lower rates due to multi-funder solution and rates competition between banks on the Prime Revenue platform
- **Key success factors:**
  - Conagra Brands' own **procurement people were trained on best practice** for marketing the program
  - Conagra Brands involved staff from different departments e.g. finance, treasury etc. An important part was played by the **procurement department in commercial negotiations with every supplier**
  - Prime Revenue **provided the skills and supporting tools** to help onboard strategic suppliers while Conagra Brands' teams took complete ownership of the project with full support from senior management who **empowered the teams to make key decisions**

Exhibit 41 : Congra brands case study

Puma's reverse factoring program case study

Context	Approach

- Puma is the **third largest sportswear manufacturer** in the world, that designs and manufactures athletic and casual footwear, apparel and accessories

Objective

- Puma wanted to launch an innovative **reverse factoring program to incentivize** environmental and sustainability programs in their supplier network

Approach

- **Puma, IFC and BNP Paribas** came together to provide financing to all of Puma's suppliers across the globe with majority of their suppliers based in Asia
- Puma also partnered with **GT Nexus for the IT platform** for this reverse factoring program
- Their suppliers were rated across 3 parameters: **environmental, health and safety, and social**
- A **tiered pricing structure was offered** to lower financing costs for suppliers **who rated highly on Puma's supplier rating system**
- Implementation was carried out by **sourcing teams with additional support provided by treasury**

Exhibit 42 : Puma case study

Vodafone's reverse factoring program case study

Context	Approach
▪ Vodafone is a British multinational **telecommunications conglomerate** ranked 2nd in the number of mobile customers ▪ In 2010, Vodafone rolled out a bank-led supply chain finance program that **could not readily be scaled up** **Objective** ▪ Vodafone wanted to offer entirely **optional early payment facilities** to all suppliers in the supply chain, at **competitive rates**	▪ Vodafone partnered **with Taulia for the technology platform** and **Greensill Capital for third-party funding** from institutional investors and corporates ▪ **Key success factors:** – Ensured that all **suppliers can take advantage of early payment** – Kept it **completely optional**: suppliers must not be forced to accept early payment – Provided a **simple online registration** process – Ensured the IT platform was capable of **full integration with SAP** – Allowed **e-invoicing free of charge** to suppliers

Exhibit 43 : Vodafone case study

JP Morgan case study (1/2)

Proprietary IT platform

JPMorgan

Services	Before	Now	Benefits for companies
E-purchase order/ invoice/payment **Invoice matching to purchase orders** **Purchase order tracking**	▪ Paper-based invoice processing	▪ Banks' system integrated into corporate's AR/AP system, automatically handling electronic invoice processing, reconciliation, and payment	▪ **Accelerated processes** and dynamic payment terms management creating more room for **early payment discounts** ▪ **Automated processes** helping to achieve – Lower processing costs – Lower error rate
Supplier database and selection	▪ Buyers mainly working with suppliers that have some history with the company	▪ Access to thousands of new and reliable suppliers across the world	▪ Network of **reliable suppliers** ▪ Easy supplier setup

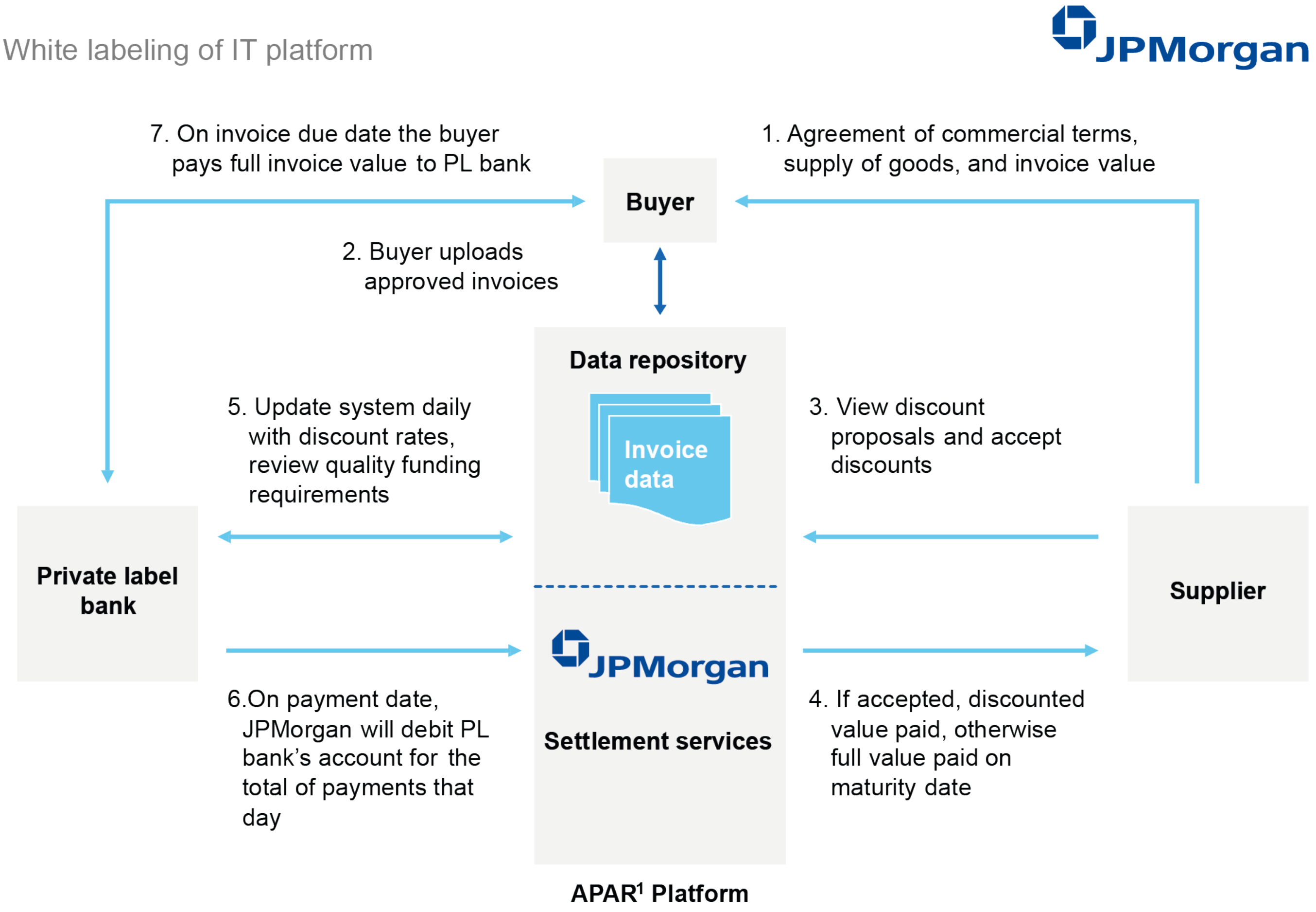
Example – Payless Shoesources Inc. using JP Morgan Xign to manage its AP-from invoice capturing to matching with payment order, to payment terms management, and payment execution

Payless SHOESOURCE JPMorgan

Exhibit 44 : JP Morgan case study (1/2)

JP Morgan case study (2/2)

White labeling of IT platform



[1] Account Payable Accounts Receivable (APAR)

Source: JP Morgan

Exhibit 45 : JP Morgan case study (2/2)

C2FO case study (1/2)

Product description and business models	▪ Online B2B marketplace for working capital that facilitates early invoice at a discount – Buyers specify on the platform the amount of cash it has to pay invoices earlier, and the required rate – Similarly suppliers specify the discount it is willing to offer to receive payment earlier – C2FO utilizes a number of different algorithms to match account receivables (AR) and account payables (AP) ▪ Does not process payment or hold funds, and in its pure form does not have credit risks ▪ Charges buyers a subscription fee and a share of return generated
Value proposition	▪ **For suppliers**: this provides an alternative to working capital finance via overdraft or other financing sources. On average the **payment acceleration is ~1 month. No fees or contracts** for suppliers ▪ **For buyers:** this provides a way of paying less in return for paying earlier. **Buyers retain the flexibility to adjust the available cash pool** offered based on their excess cash position on any given week
Target customers and acquisition model	▪ Suppliers and buyers globally ▪ Customer acquisition strategy is through signing up big buyers, get the contact list of suppliers, then sign up the suppliers in a systematic way ▪ Most suppliers are happy to sign up and engage because their buyers are on. 60% of active suppliers choose to automate the bidding
Current scale and partnerships	▪ Currently serves businesses of all sizes, operates in multiple currencies and is available globally with multilingual support ▪ Currently >70 major buyers on the system (e.g. Amazon, Cosco, Walgreen, Sysco, ToyRUS), >250k suppliers on the system
Future development plan	▪ The model leads to very high and real-time visibility into the product orders and invoices of all the buyers and suppliers who are on the platform ▪ In the process of setting up a fund "Water for Commerce" to provide extra liquidity (from C2FO and third party investors) to the marketplace as well

Source: C2FO materials, team analysis

Exhibit 46 : C2FO case study (1/2)

C2FO case study (2/2)

Limited credit risk and balance sheet requirement	▪ C2FO business model, in its pure form, has no incremental credit risk, as it simply serves as the collaboration and optimization platform for buyers and suppliers – The same buyer is paying the same supplier, just a little bit less and a little bit sooner ▪ Similarly, the platform business requires no balance sheet from C2FO ▪ Water for Commence business could potential require balance sheet and introduce credit risk
Accounting value proposition for customers	▪ From an accounting perspective, it is margin accretive to buyers ▪ Whilst the buyers are effectively "financing" their suppliers, it is not a loan and the reduction in payment would be reflected in the cost line, hence improving the gross margin line and EBITDA – This is beneficial compared to other ways of cash management, which would impact “interest earned”, way below the EBITDA line
Customer acquisition scalability	▪ The customer acquisition model targets large buyers, such as retailers, global electronics companies, auto companies etc. Then signing up their suppliers systemically ▪ Each buyer on-boarded in the system would provide C2FO immediate connectivity to thousands of suppliers ▪ This is arguably more efficient then supplier-led model acquisitions. The large amount of smaller sized suppliers could require considerable marketing effort if not signed up through the suppliers
Ecosystem and power of data	▪ C2FO has good visibility of the business activities in the network ecosystem and associated real-time invoice data ▪ This allows C2FO to better assess the financial health associated with individual companies, better design suitable bid/offer matching algorithms and can potentially extend to other risk-based financing opportunities for financing pre-approval invoices or modified invoices etc.

Source: C2FO materials, team analysis

Exhibit 47 : C2FO case study (2/2)

Prime Revenue case study (1/2)

Descriptions

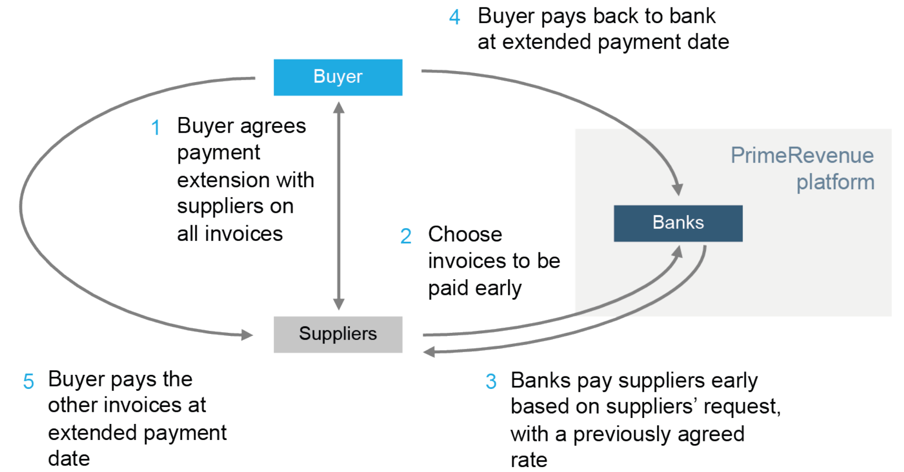
- **Overview: a leading multi-bank SCF platform with ample liquidity from a range of funders** (including banks such as HSBC and Barclays, alternative funders such as AIG and Greensill)
- **Offerings:** SCF and to a lesser extent dynamic discounting
- **Scale:**
  - currently c.200 buyer
  - 20,000 suppliers
  - c. $100b SCF processed p.a.
- **Pricing model:** two pricing models offered
  - Subscription fee for a fixed threshold of capital generated for a buyer
  - A (single digit) percentage of what banks charge
- **Funding source:** 50 funding partners including HSBC, Barclays, AIG and Greensill
- **Other notes:**
  - Strong in packaged food and beverage, and automotive
  - has a partnership with partnership with Ariba

Illustrations of PrimeRevenue's SCF offerings

Setting up of a SCF program

1) Buyer discusses the requirement with PrimeRevenue (PR) and informs PR the list of banks it would like to include in the SCF program
2) PR facilitates the negotiation of the terms and finalizes a list of funders to include
   a) Funders to KYC the buyer (for banks it is the same requirement as bank's own SCF program, the KYC requirement might be lighter for non -bank funders)
   b) Funders and buyer decide on the rate at the beginning of the program (spread + libor), different funders' spreads for the same buyer could be different
3) The SCF program is set up for the buyer, funded by a list of banks, every participating suppliers is assigned one bank each for the SCF program

Funding process of a SCF program



Source: Interview, press search

Exhibit 48 : Prime Revenue case study (1/2)

Prime Revenue case study (2/2)

Competitive advantages	Potential challenges
▪ **Market leader with good reputation, large platform and large group of stable funders** – Well-established platform with a large number of buyers and suppliers, and unrivalled number of financial institutions (55+) ▪ **Business model offers flexibility, competitive rates, and quality service** – Collaborative business model with financial institutions to provide funding – For buyers, PrimeRevenue allows them the flexibility to work with multiple banks and can provide a onestop shop for suppliers (comparing to having to log on to different banks' SCF system for different buyers) ▪ **PrimeRevenue is strong in SCF, but also offers dynamic discounting** – Two products address different needs of buyers: dynamic discounting is appealing for buyers with potential liquidity to pay suppliers early for a return/EBITDA enhancement, and SCF is appealing for buyers who would like extra liquidity by extending payment terms – Generally speaking, the market for SCF is larger than that for dynamic discounting, driven by the 3rd party funding – However, SCF requires more processes such as KYC of funding banks, compared to dynamic discounting	▪ **Banks may have more attractive economics** – The pricing model for PrimeRevenue (and the wider sector) raises some concerns on the amount of volume required for significant revenue improvement – Banks (or funders who take the credit risk) takes majority of the revenue and only a small proportion (e.g. ~10%) is for the platform – As a result, it would require 10x of a bank SCF program for the platform to generate the same amount of the revenue as a bank's SCF program (assuming platform takes ~10% of bank revenue), which may not be easily achievable ▪ **Competition with banks should PrimeRevenue offer funding directly** – If PrimeRevenue provides funding directly, it would be competing with large banks who provide funding through PrimeRevenue ▪ **Client onboarding speed** – Despite PrimeRevenue's strong position in SCF, the client onboarding is also relatively slow that they have a total of 200+ buyers since the company inception of 2004 ▪ **Lack of e-invoicing system** – Lack of e-invoicing capability or partnership with an e-invoicing platform may be a potential disadvantage in customer acquisition or sales pitch

Source: Interview, press search

Exhibit 49 : Prime Revenue case study (2/2)

4.2 Concluding remarks

The main objective of this knowledge guide is to present an overview of Supply Chain Finance and its market potential in Pakistan, illustrating approaches that banks and other financial institutions can take to avail of the opportunity.

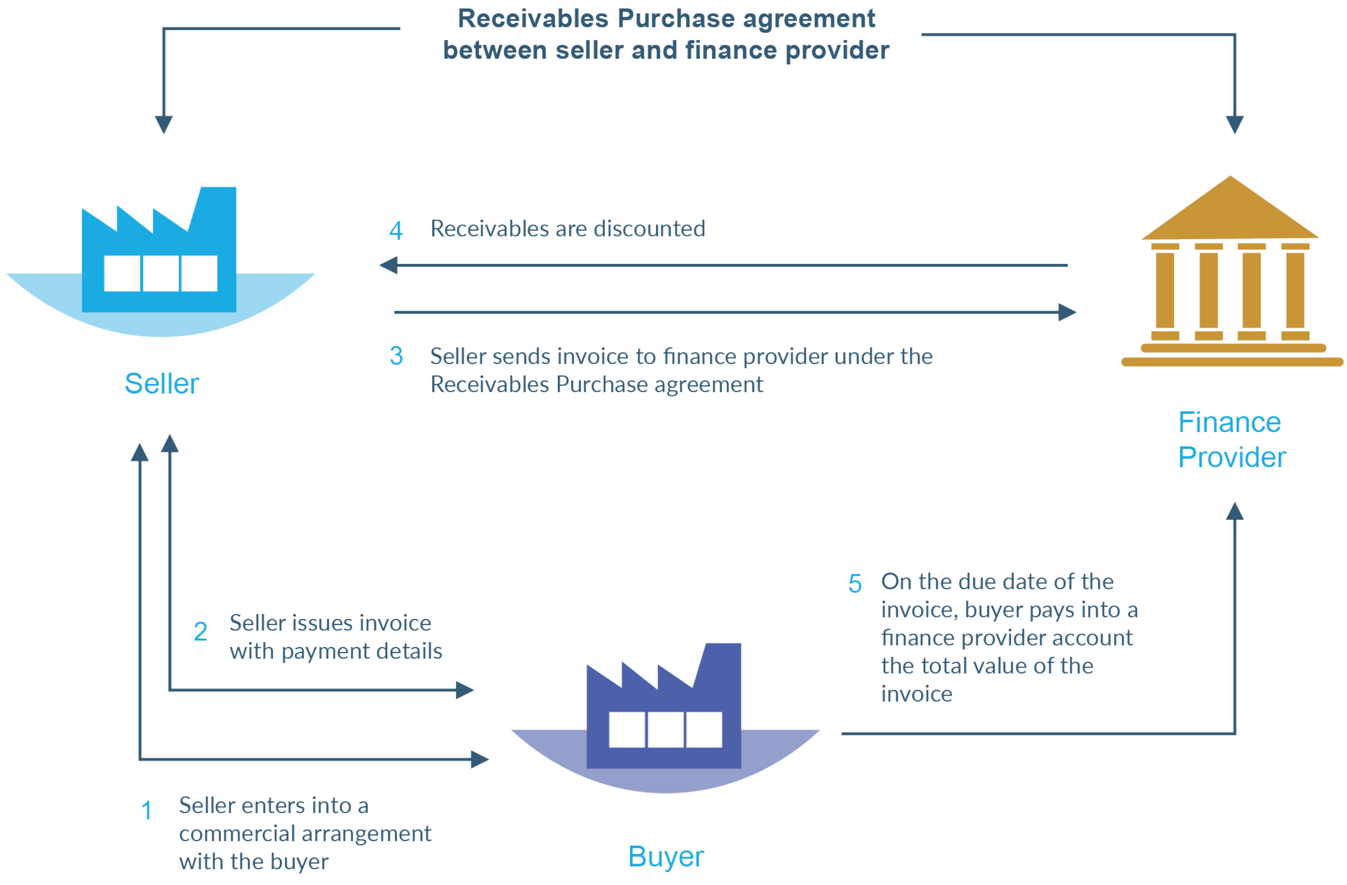
The economic crisis in 2009 had a significant effect on global supply chains. Credit arbitrage increased between non-investment grade and investment grade companies. This created a greater incentive to explore SCF programs for non-investment grade companies seeking access to low-cost financing. Further, companies are increasingly looking to optimize their working capital and improve their payment periods. In the current environment of constrained capital, buyers want to pay later and suppliers want to collect earlier. Supply chain financing serves as a viable solution as it allows both the buyer and the supplier to release trapped liquidity. Consequently, global supply chain finance assets have grown by 9% p.a. (2010–16) and are expected to grow further by 5% p.a. (2017–2020).

Most banks in Pakistan currently do not have active supply chain financing programs despite the demand potential. The market requires financial institutions to partner with SCF service providers to benefit both buyers and suppliers. This can free up working capital across supply chains which can spur significant growth for SMEs. Payment terms can also be extended from 24 days to ~71 days for the overall market. Considering these credit conditions, the opportunities are sizeable and can be capitalized by financial institutions.

Supply chain financing serves as a win-win situation that allows both buyers and suppliers to optimize their working capital. It also serves as a cheaper alternative for SMEs to raise financing by leveraging the credit risk of the buyer. Although the calculated cost savings and benefits for supply chain constituents are considerable, the global SCF market is still in its infancy. In Pakistan it is nascent, with significant potential waiting to be unlocked.

Appendix

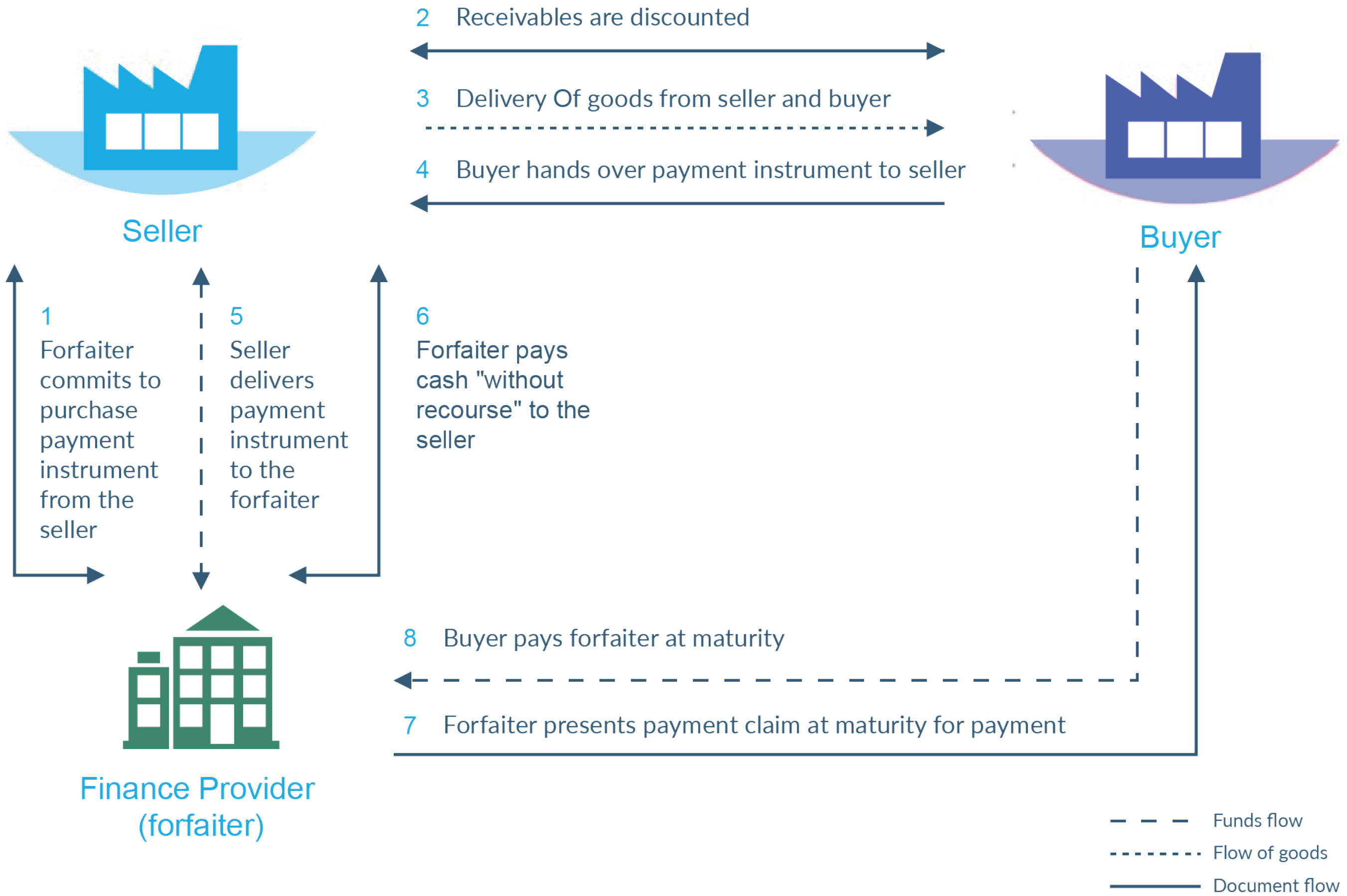
1. Receivables Discounting



Source: Global SCF Forum

Exhibit 50 : Receivables discounting

2. Forfaiting

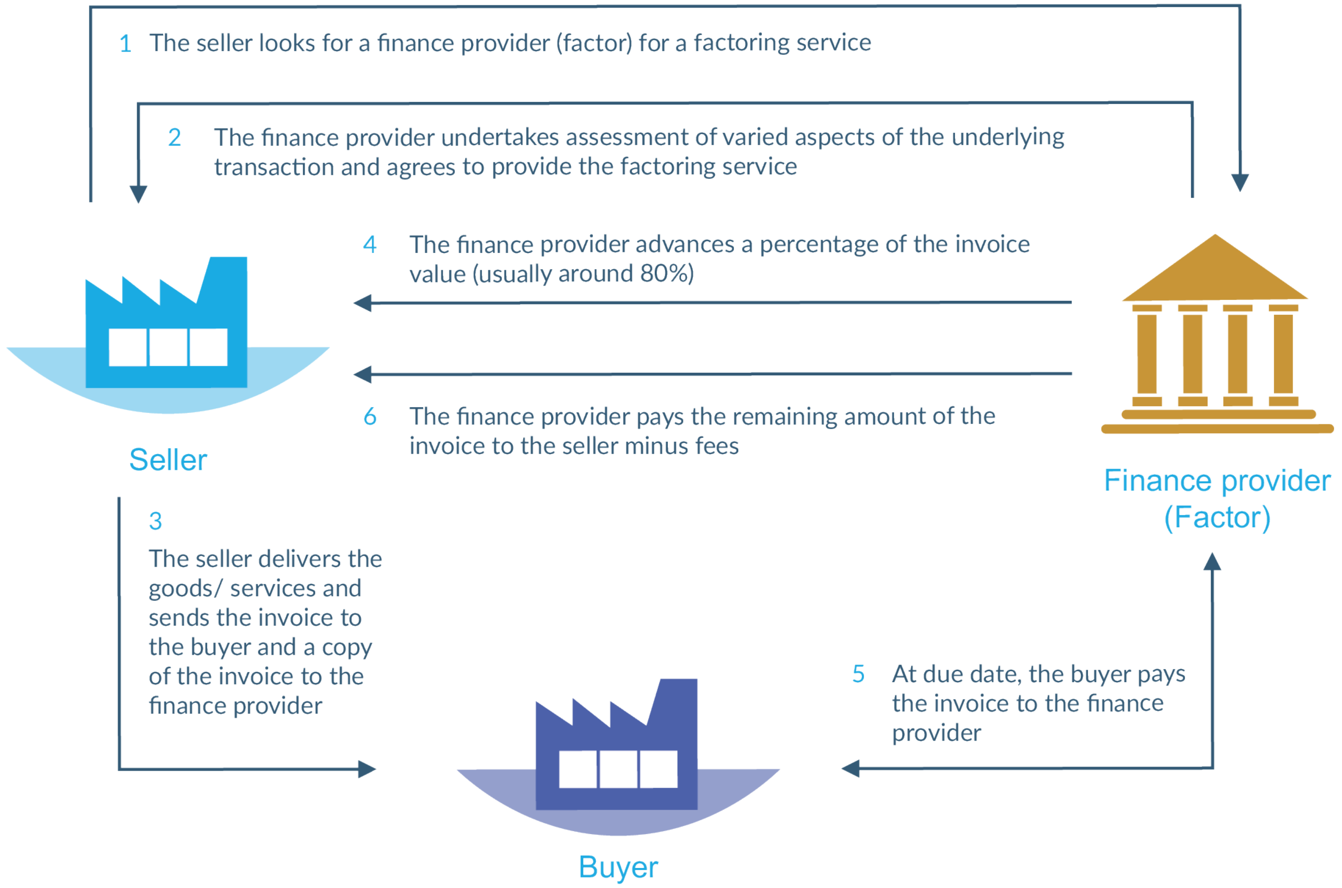


N.B. Where the payment claim is guaranteed by a third party (e.g. an avalised bill or note), demand for payment will be made on that guarantor and the importer

Source : Global SCF Forum

Exhibit 51 : Forfaiting

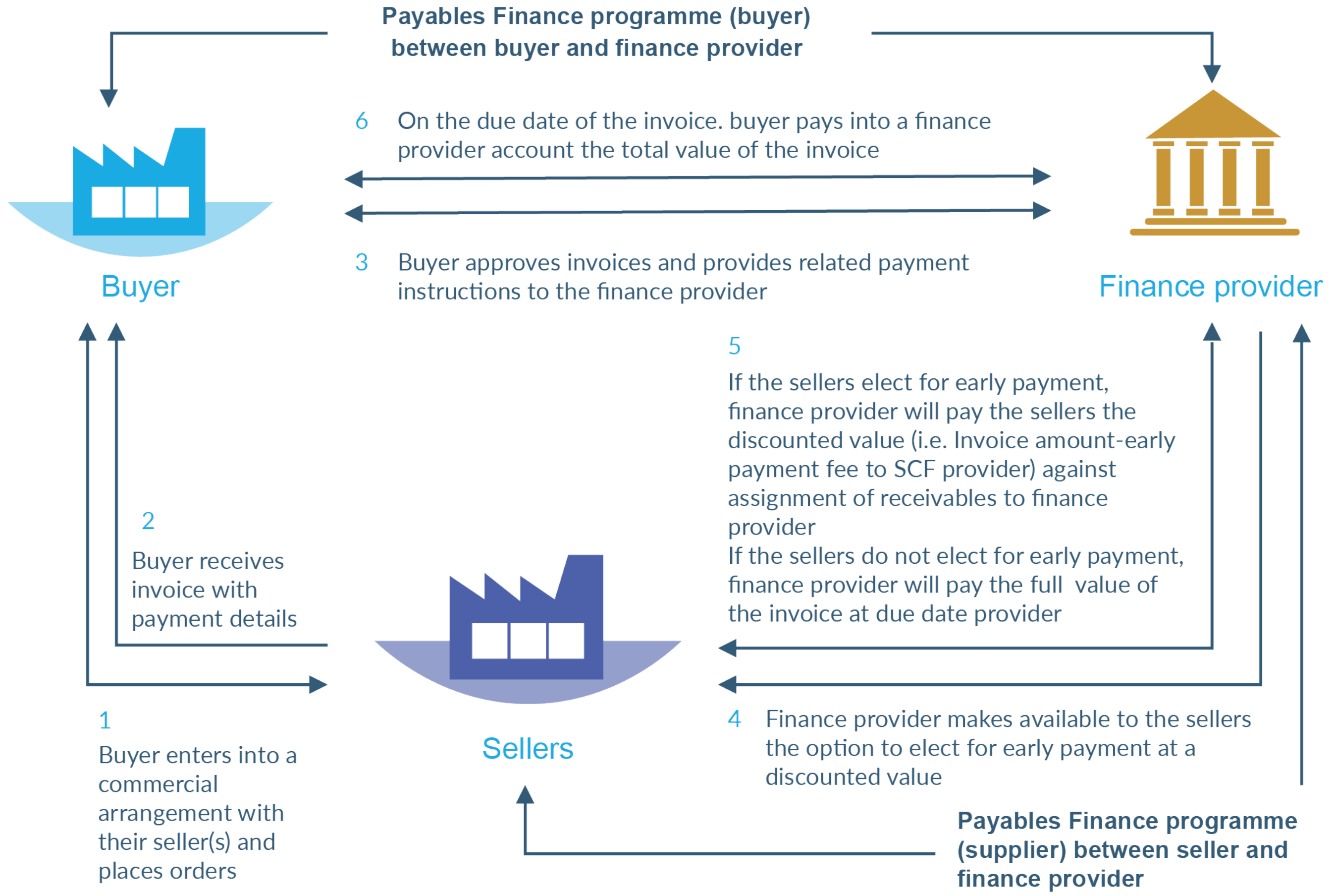
3. Factoring



Source: Global Supply Chain Finance Forum

Exhibit 52 : Factoring

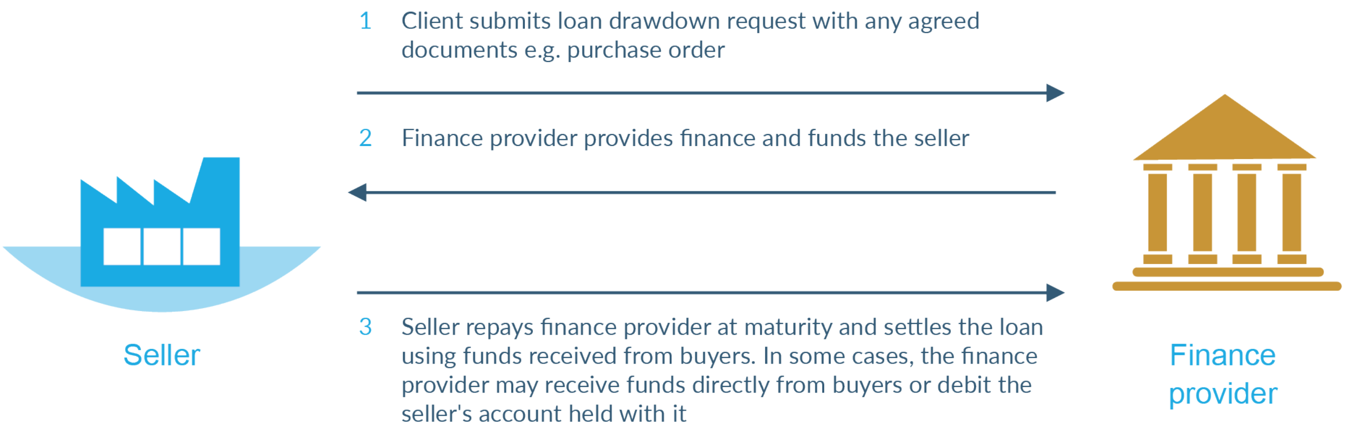
4. Payables Finance (Reverse factoring)



Source: Global Supply Chain Finance Forum

Exhibit 53 : Payables finance (reverse factoring)

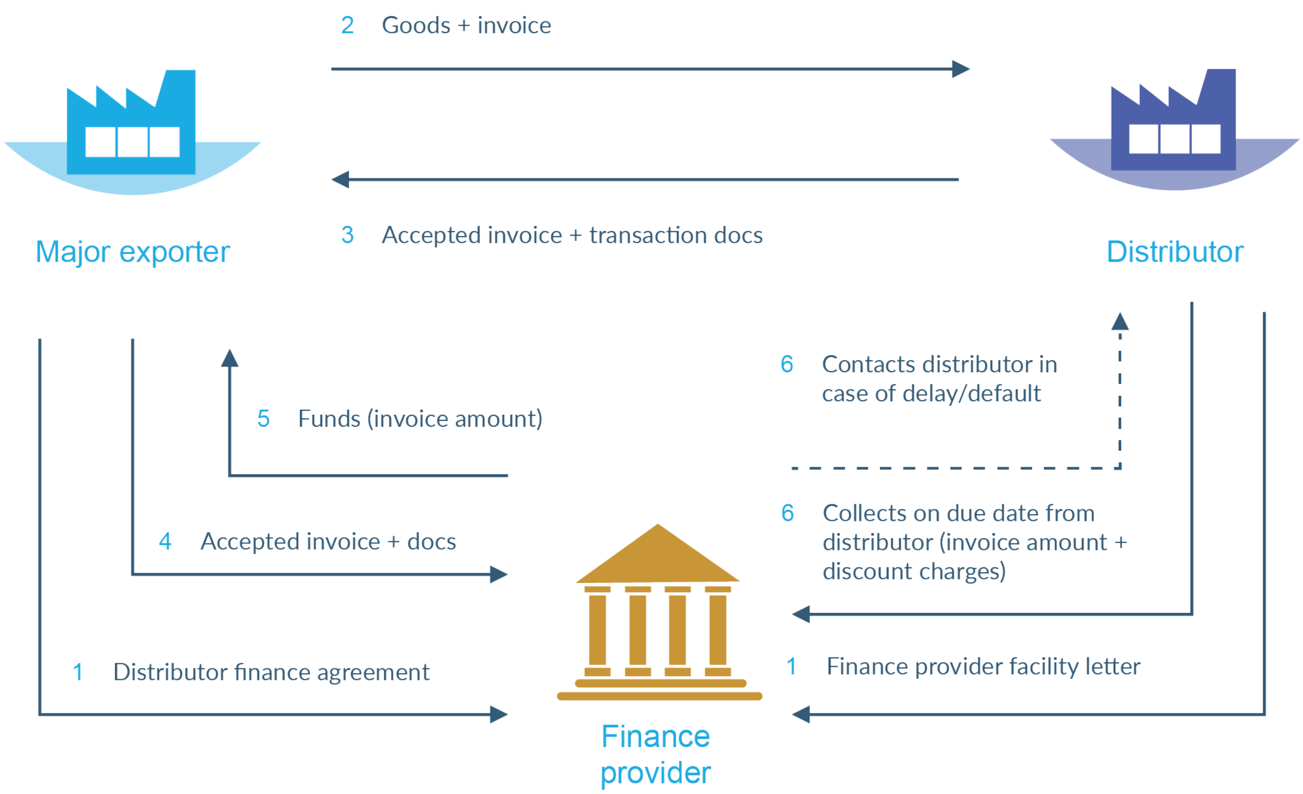
5. Loan or advance against receivables



Source: Global Supply Chain Finance Forum

Exhibit 54 : Loan or advance against receivables

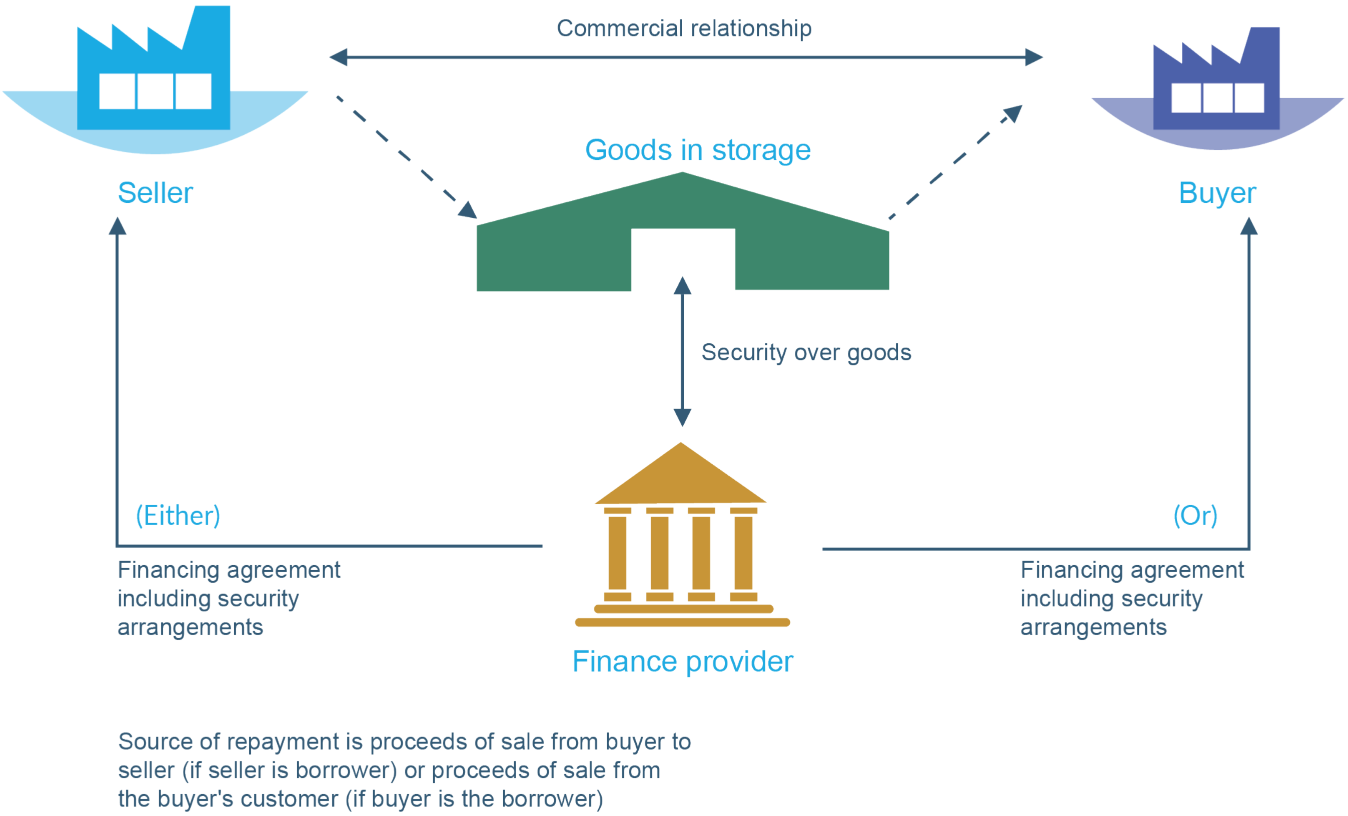
6. Distributor finance



Source: Global Supply Chain Finance Forum

Exhibit 55 : Distributor finance

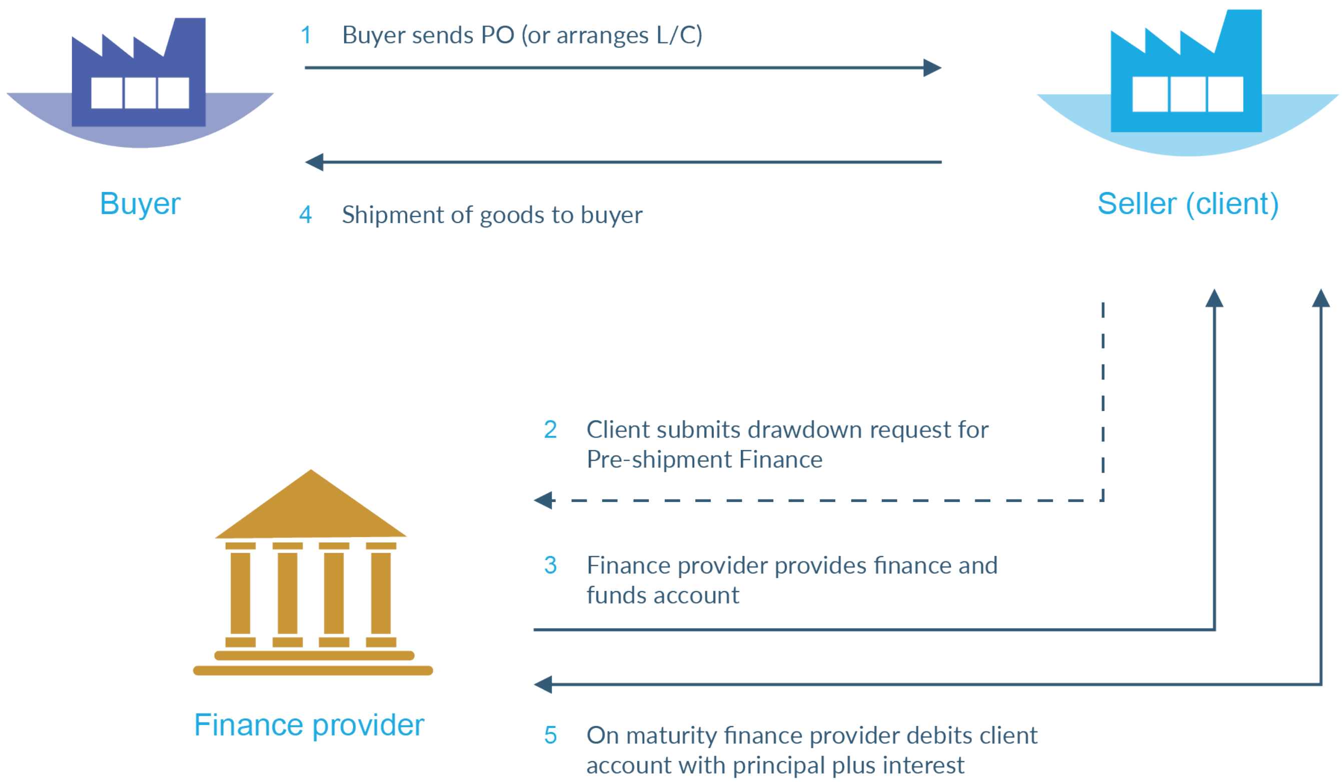
7. Loan or advance against inventory



Source: Global Supply Chain Finance Forum

Exhibit 56 : Loan or advance against inventory

8. Pre-shipment finance



Source: Global Supply Chain Finance Forum

Exhibit 57 : Pre-shipment finance

List of Abbreviations

Abbreviation	Explanation
SCF	Supply Chain Finance
DSO	Days Sales Outstanding
DPO	Days Payable Outstanding
IFC	International Finance Corporation
ICC	International Chamber of Commerce
SMEDA	Small and Medium Enterprises Development Authority
MNC	Multinational Company
ADB	Asian Development Bank
KYC	Know-Your-Customer
COGS	Cost of Goods Sold
SME	Small and Medium Enterprises
RM	Relationship Manager
KPI	Key Performance Indicators
IT	Information Technology
APAR	Account Payable Accounts Receivable
IO table	Input/output table
GTAP	Global Trade, Assistance, and Production
GDP	Gross Domestic Product
PO	Purchase Order
CFO	Chief Financial Officer
B2B	Business-to-Business

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