Between supply chain disruptions, volatile interest rates, and recessionary pressures, companies are putting a greater focus on generating cash flow. In 2023, working capital optimization has become a top-of-mind issue for CEOs, CFOs, treasurers, and finance leaders. And one of the fastest growing components of working capital optimization is managing the complex ecosystem of business-to-business (B2B) payments. In most consumer payments, the key decision is, “How do I want to pay for this.” With B2B payments, the decision has much more dimension: “How and when do I pay for this?”

To help manage the “how” and “when” components of B2B payments, finance leaders are increasingly implementing and integrating payment processing with accounts payable (AP) automation, accounts receivable (AR) automation, supplier spend management platforms, and supply chain finance (SCF) solutions. As a result, banks, fintechs, and private equity are all investing to deliver new innovations into this ecosystem, leveraging the vast data that currently sits across multiple point solutions.

**How to pull the disparate data together**

In recent years, there has been a proliferation of multiple types of “payments-oriented” players. While many fintech companies specialize and successfully compete in one or two of these areas, there are no major players providing all types of B2B payment-related services across the entire extended ecosystem.

---

### The B2B payment landscape consists of numerous subsegments, including AP/AR automation, payment processing, spend management, and increasingly, supply chain finance

#### B2B payment landscape

<table>
<thead>
<tr>
<th>A</th>
<th>AP automation</th>
<th>AR automation</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Payment processors</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Virtual cards</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Merchant acquirers</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Dynamic/invoice discounting</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Trade receivable financing</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Purchase order financing</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Deep tier financing</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Factoring</td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Asset-backed lending (inventory financing)</td>
<td></td>
</tr>
</tbody>
</table>

**Key:**
- Moderate to high growth subsegments
- Relatively newer, higher growth subsegments

---

**A. AP/AR automation**

Key benefits are increased efficiency of AP/AR business units and verifiable history; AP/AR automation is most useful when integrated across the B2B payment landscape.

**B. Payment processing**

Virtual cards and merchant acquirers (card acceptance/payment processing services) are growing in use, driven by adoption of electronic payments.

**C. Spend management**

Spend management platforms help companies track and manage spend and supplier information, as well as optimize sourcing.

**D. Supply chain finance**

Supply chain finance is gaining traction as a method to better utilize working capital. Data and APIs from B2B payment platforms help to enable this type of financing by providing verifiable history to lenders.
Companies have various solutions to choose from, and each platform has a compelling business case. Companies can implement any or all of these platforms to create value, and even when implemented as single, stand-alone platforms, companies report strong returns on their investments. Three of the most widely adopted platforms are payment processing, AP automation, and AR automation.

Each of these platforms generates massive amounts of detailed data that can have significant latent value beyond their core use case. However, for the most part, these various data sources are not integrated to create a truly holistic picture of activity. By combining B2B payment, AP, and AR automation data, businesses can gain valuable insights into their payment patterns, identify payment delays and discrepancies, and assess the financial health of their suppliers and customers. This data can also be used to optimize payment strategies, reduce overall costs, and help stakeholders (e.g., boards, investors, lenders, and underwriters) understand the earnings/credit quality of their business.

This combination of data can provide unprecedented visibility into entire supply chain networks, from individual supplier performance metrics to individual customer payment patterns. This is immensely valuable to companies that operate in large or complex supply chains. However, the data created is also applicable to areas outside of improving a particular company’s performance, such as SCF.

For example, a lender can use the detailed information from AP systems to determine which suppliers are most frequently paid by a buyer, how much they are paid, and how often they are paid to create a verifiable credit history for each participant; they can use payments-related data to verify that the payment transaction occurred on time, and they can leverage AR data to ensure the payment has been closed out in a timely fashion.

**Supply chain finance—the next frontier for payments data**

The SCF market is large and growing—global SCF volume was $1.8 trillion in 2021, an increase of 38 percent from the prior year. North America is estimated to be roughly half of that market, with Europe comprising an additional 25 percent. As a critical component of business operations that is crucial to maintaining the financial stability of a company, SCF can encompass all the financial activities involved in the production and delivery of goods and services, from initial procurement of raw materials to the final point of sale.

As a way to provide financing solutions to various constituents across the supply chain—such as early payment discounts, dynamic discounting, inventory financing, and factoring—SCF helps companies manage their working capital and optimize their financial operations. However, in order for SCF to be successful, lenders require access to reliable data in order to make informed decisions and ensure that repayment is made accurately and on time. Historically, this has required manual processes—this includes underwriting each supply chain participant individually, as well as the creation of borrowing-base documents on a monthly basis, and manual approval of invoices when disbursing loan proceeds.

---

1 Kristin Broughton, “Companies Offer Supply-Chain Financing to Vendors as They Bulk Up on Inventory, Push Out Payment Terms,” The Wall Street Journal, June 20, 2022

---

**Typical steps in supply chain finance**

Supply chain finance involves the use of various financial tools and products to optimize the management of cash flow and working capital for various participants across a supply chain. While there are many nuances depending on the customer type and type of financing, in general the typical steps and processes in SCF are:

1. **Onboarding**
   - The first step in SCF is to identify and onboard suppliers and buyers to the program. This involves setting up a legal framework, establishing credit lines, and conducting due diligence on the parties involved.

2. **Order placement**
   - Once the supplier and buyer are onboarded, the buyer places an order with the supplier for goods or services.

3. **Invoice submission**
   - After fulfilling the order, the supplier submits an invoice to the buyer for payment.

4. **Invoice verification**
   - The buyer verifies the invoice and approves it for payment. This may involve reconciling the invoice with the purchase order and checking for any discrepancies.

5. **Financing request**
   - The supplier may request early payment of the invoice from a third-party financial institution. The financing request includes details of the approved invoice and the amount to be financed.

6. **Financing approval**
   - The financial institution reviews the financing request and approves the amount after checking the creditworthiness and risk.

7. **Payment**
   - The financial institution makes the payment to the supplier, either directly or through the buyer. The buyer then pays the financial institution at a later date, usually at the end of an agreed-upon payment term.

8. **Settlement**
   - At the end of the payment term, the buyer settles the outstanding balance with the financial institution, which completes the SCF cycle.
Throughout the SCF cycle, various products may be used to optimize cash flow and working capital, such as dynamic discounting, factoring, reverse factoring, and payables finance. These products can provide suppliers with early payments and buyers with extended payment terms while reducing financing costs and improving overall supply chain efficiency.

While the SCF process illustrated above may seem somewhat complex, it becomes even more so when you consider that the sequence of steps outlined above is “layered,” i.e., each step takes place multiple times during the process of moving from raw materials to finished goods, as companies obtain goods from suppliers and then themselves become suppliers to other companies up the value chain. This requires multiple financial contracts across multiple constituents, with each “layer” requiring successful completion by the preceding “layer.” However, with this complexity comes the opportunity to enhance the flow of data and information to release latent value for all constituents.

As companies have increased their inventory levels coming out of the pandemic-related supply chain crisis, working capital has been pressured, amplifying the need for SCF solutions. Additionally, SCF is one of the few areas of finance where demand increases as interest rates rise. As rising interest rates make traditional sources of financing more expensive, SCF provides suppliers with a relatively affordable source of cash.

### Global supply chain financing volumes ($T, USD)

<table>
<thead>
<tr>
<th>Year</th>
<th>Value ($T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>$1.0</td>
</tr>
<tr>
<td>2020</td>
<td>$1.3</td>
</tr>
<tr>
<td>2021</td>
<td>$1.8</td>
</tr>
</tbody>
</table>

Source: The Wall Street Journal

### Better lending decisions through the use of new data sources

Data is the lifeblood of effective underwriting, and nowhere is this truer than in SCF. One way lenders can improve their lending decisions and minimize risk in the lending process is to combine, analyze, and reconcile data from B2B payments, AP automation systems, and AR automation systems. This approach provides them with a wide-ranging view of a company’s financial health, and helps them make better underwriting and pricing decisions.

For instance, a company with a history of late payments or a high AP balance may be seen as a higher risk for loan repayment, while a company with a history of timely payments and a low AP balance may be seen as a lower risk. Such data can also be used for dynamic pricing based on real-time performance metrics.
B2B payments data integration (and “information exhaust”) is key to amplifying the system’s value to lenders, corporations and suppliers

B2B payment data provides essential insights into payments made between businesses in the supply chain, such as payment amounts, payment dates, payment methods, and payment status. AP automation data provides information on the processing of AP transactions, including SKU-level details of invoices received, approved, and paid. AR automation data provides information on the processing of AR transactions, such as invoices sent, invoices due, and reconciliation of invoices paid.

Supplier data
- Supplier firmographics
- Product catalog
- Payment terms
- Credit scores

Customer data
- Customer firmographics
- Proof of activity
- Approval workflow status
- Onboarding data
- Payment activity

Sourcing data
- Forecasting and inventory management data
- ESG monitoring/scoring
- Control systems data
- ERP financial data

Verifiable history/audit trail data
- Invoices
- Purchase orders
- Transaction history
- Onboarding activities
- Red flag checks

Corporation value drivers
- Improve working capital
- Manage supply chain disruptions
- Find alternative suppliers
- Reduce manual processes
- Improve finance team cost structure
- Reduce fraud
- Automate regulatory reporting (e.g., tax authority e-invoices)

Lender value drivers
- Provide credit to deep tier suppliers
- Improve credit analytics
- Decrease time to verify payment history
- Create KYC audit trail
- Accelerate customer onboarding

Supplier value drivers
- Facilitate access to supply chain financing, especially for deep tier suppliers
- Reach new customers as alternative suppliers, ESG favorable options, etc.
- Optimize payment terms

Leveraging machine learning algorithms to analyze financial data can help lenders identify trends and make predictions about future financial performance and credit worthiness—even on an invoice-by-invoice basis, if desired. Lenders can use these algorithms to analyze a company’s history of late payments or changes in its AP balance and make informed lending decisions.

Many small- and medium-size businesses (SMBs) may benefit from the usage of this data by lenders—SMBs are critical to many economies, but often struggle to access SCF due to limited financial data, lack of documented credit histories, and resources for financial record keeping. By combining B2B payment data, AP automation data, and AR automation data, lenders can gain a more thorough view of an SMB’s financial health and the health of the supply chain in which it is operating. This can enable lenders to make more informed lending decisions and expand the availability of SCF to historically underserved segments.

By capturing and analyzing new sources of data, lenders can obtain proprietary performance information on companies that was previously difficult or impossible to manually acquire, helping them gain a competitive edge in the lending market.

Examples include:
- **Purchase orders and invoices** – These documents can provide insights into a company’s payment history and help lenders assess the company’s ability to pay back the loan.
- **Inventory levels** – Lenders can analyze a company’s inventory levels to determine its ability to fulfill customer demand and manage its cash flow effectively.
- **Shipping and delivery data** – This information can help lenders assess a company’s customer base, supply chain efficiency, and overall financial health.
- **Supplier and vendor data** – By analyzing a company’s relationships with suppliers and vendors, lenders can determine the company’s ability to manage its costs and negotiate favorable terms.
- **Sales data** – Lenders can analyze a company’s sales data to determine its revenue trends in real time, which can help them make better lending decisions.
Robust data can power new types of supply chain finance

Two solutions available for businesses to improve their cash flow and manage their working capital are invoice financing and pre-invoice financing. Invoice financing provides funding to a company based on its outstanding invoices, while pre-invoice financing provides funding before an invoice is issued, based on a purchase order from a customer. Both solutions can be useful in different situations, and pre-invoice financing can provide smaller businesses with upfront funding to cover the costs of manufacturing and delivering goods or services to a customer.

However, lenders have historically been less inclined to offer pre-invoice financing compared to other types of financing solutions due to the additional risk involved. The lender may face challenges verifying the quality and quantity of goods or services delivered or ensuring the purchase order is valid and legally binding. Nonetheless, pre-invoice financing can help companies take advantage of growth opportunities, such as large orders from new or existing customers, and reduce the overall supply chain risk associated with fulfilling large orders.

Pre-invoice financing can be especially beneficial for businesses that rely on a complex supply chain and have long payment cycles. Certain types of businesses and industries would benefit immediately from wider availability of pre-invoice financing including:

- Manufacturing companies often have long production cycles and need to purchase raw materials and components well in advance of when they can invoice their customers. Pre-invoice financing can help them bridge this gap and ensure that they have the cash flow they need to keep their operations running smoothly.
- Importers and exporters often need to pay their suppliers upfront for goods that will not be sold or delivered for several months. Pre-invoice financing can help them manage this cash flow gap and ensure that they have the funds they need to fulfill their orders.
- Retailers and distributors often need to purchase inventory well in advance of when they can invoice their customers. Pre-invoice financing can help them manage their cash flow and ensure that they have the inventory they need to meet customer demand.
- Construction companies often need to purchase materials and pay contractors well in advance of when they can invoice their customers. Pre-invoice financing can help them manage their cash flow and ensure that they have the funds they need to complete their projects on time.

The application of data from AP automation, AR automation, and B2B payments can reduce the risk involved in pre-invoice financing and increase the viability of pre-invoice financing in several ways. By leveraging data from AP and AR automation, lenders can assess historical performance against historical purchase orders and gain a better understanding of a company’s financial health and creditworthiness.

Build, buy, or partner?

The B2B payments, AP automation, and AR automation sectors are still highly fragmented. While SCF markets have historically been dominated by banks, more nonbanks are participating today than ever before. As a result, there are numerous pathways to enter, invest, and/or compete in the market. Given the high level of fragmentation in the market, we anticipate various implementation approaches:

Roll-up via private equity

For private equity firms interested in the B2B payments space, there are opportunities to acquire a combination of point-solution providers to create a holistic scale competitor.

Bank tuck-in

As a traditional provider of SCF, there are opportunities for banks to acquire a combination of new capabilities and offer a portfolio of solutions to their customers focused on helping treasurers holistically manage their working capital. This is especially true for banks with a very strong SMB or commercial banking division and/or strong existing treasury management platforms.

Embedded finance partnerships

There has been a relatively recent movement of B2B payment and SCF providers partnering with industry SaaS platforms to share data and integrate application programming interfaces, helping customers access new products and features.
Returns for supply chain finance can be attractive

The potential for high financial returns makes SCF attractive to lenders—SCF returns can approach the returns in unsecured lending, but with additional security. In essence, SCF works by providing a third-party lender with a secured interest in the goods being supplied. The lender then pays the supplier for the goods, and the buyer pays the financier on an agreed-upon date. Effectively, loans are secured by the goods being supplied. This means that in the event of a default, the lender has a tangible asset to recover their investment. Additionally, the involvement of a creditworthy buyer reduces the risk of non-payment, as the lender can rely on the buyer’s creditworthiness to ensure timely payment.

Lenders can earn a higher annualized yield than they would with traditional long-term lending because these transactions are typically short-term. And unlike consumer lending, where interest rates are often highly regulated, business lending has a much broader range of yield for lenders. For example, it has long been a standard practice for suppliers to offer terms on their invoices such as “2/10 Net 30” (i.e., a 2 percent discount if the invoice is paid within 10 days, otherwise balance is due in full within 30 days) to incent early payment. If equated to an annual percentage rate (APR), the traditional 2/10 Net 30 contract would carry an APR of nearly 37 percent. Furthermore, lenders can often earn a fee for providing the financing, which can increase their returns even further.

With access to larger data sets to make better informed—and often in real time—lending decisions, it is likely that effective interest rates that are materially lower than current SCF options could be offered without reducing overall returns for lenders, allowing a fully data-driven SCF provider to gain market share versus existing players. As mentioned earlier, using enhanced data in SCF could also open the window to more small business borrowers, as well, which would increase the number of borrowers that could qualify for loans.
Distributed ledger—a potential enabling opportunity

When combined with actionable data, distributed ledger technology—specifically smart contracts—has the potential to further transform SCF over the medium and longer term. Smart contracts are self-executing digital contracts that automatically trigger payment upon the fulfillment of pre-defined conditions, with many of these triggers being enabled by the data provided by payment, AR, and AP data:

- From a company perspective, smart contracts can help increase the transparency and efficiency of the SCF process. Companies can use them to automate the payment process, which reduces the need for intermediaries and manual funding requests, and enhances the accuracy and speed of payment.

- From a lender perspective, smart contracts can help reduce the risk and cost of SCF. The use of blockchain-based smart contracts gives lenders access to real-time, verifiable data on the entire supply chain, reduces the need for intermediaries, and improves the accuracy of risk assessment. Additionally, they can also help reduce the cost of financing by automating many of the processes involved, such as invoice processing and payment reconciliation.

- Smart contracts can also help increase the adoption of SCF by providing a more secure and transparent financing solution. By using blockchain, smart contracts can create an immutable record of all transactions, making it easier to track the flow of goods and payments in real-time. This can help reduce fraud and errors in the SCF process, and improves the overall efficiency and effectiveness of the financing solution. Additionally, smart contracts can also help ensure compliance with regulatory requirements, providing a secure and transparent financing solution for all parties involved.

Conclusion

The U.S. SCF market is growing not only with large corporates, but also increasingly with SMBs, driven in part by growth in digital payments, enterprise software adoption, and the increasing importance of diligent supply chain management for businesses due to the ever-increasing globalization of supply chains and proliferation of suppliers. As awareness and understanding of SCF continues to grow with SMBs, the U.S. market will likely expand significantly over the coming years.

The application of data will only further increase the adoption of SCF, as it can provide information and insights that benefit not only the companies participating, but also the lenders that offer SCF solutions. Businesses that don’t manage to figure out how to peel back the layers and unravel all of the disjointed data will not fail—life will go on, and business will continue, but they will miss a great opportunity. However, those companies that fully embrace the vast data sources available for SCF and learn how to combine, analyze, and reconcile this data will be positioned to capture the bulk of the upside.

Contact us

Ben Lewis
Managing Director, Strategy
917-438-3625
benlewis@kpmg.com

Some or all of the services described herein may not be permissible for KPMG audit clients and their affiliates or related entities.