# Working Capita Management 2020 Study 2020 Supply Chain Finance

in-n-out



Supply Chain Finance-Lab



In cooperation with





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# Working Capital Management Study 2020 Supply Chain Finance in-n-out

"The king is dead, long live the king!" Or as the saying goes: "cash is king!" Working capital management (WCM) is once again the top priority for CFOs – despite the continued low-interest environment and government injections of liquidity amounting to billions of francs. The trigger for this development was (and still is) the coronavirus crisis. Regardless of the size of the company, sector or country – finance and supply chain managers are focusing more than ever on the management of working capital, securing and managing liquidity.

Even before the crisis arose, far-sighted CFOs began to secure their liquidity requirements by using systematic WCM and by releasing capital tied up in the supply chain. Inter-company WCM approaches based on cooperation are popular at the moment and can be summed up by the generic term "supply chain finance" (SCF).

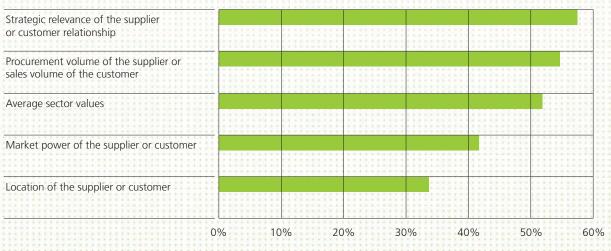
But how much liquidity can be released with SCF financing solutions? And how has the range of services on the SCF market developed in recent months? The seventh edition of the WCM study is dedicated to these questions and many other interesting issues. This edition aims to highlight further ways of creating financial room for manoeuvre and focus on developments in supply chain finance from the perspective of individual companies (inside-out) as well as from the market (outside-in).

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A brief overview of the WCM Study

# Extending payment terms is popular at the moment – little attention is being paid to potential negative effects on suppliers

# In your view, which factors should be taken into account to determine the length of payment terms with customers and suppliers?



Number of responses in % (multiple responses can be given)

The coronavirus crisis forced companies to make significant and immediate changes to their WCM practices. The study results show that the current priority for companies – in contrast to the trend in previous years – is ensuring liquidity requirements are met in day-to-day operations. The figures paint a clear picture: CHF 15 billion in bridging loans was obtained in Switzerland within just a month of the outbreak of the crisis.<sup>1)</sup>

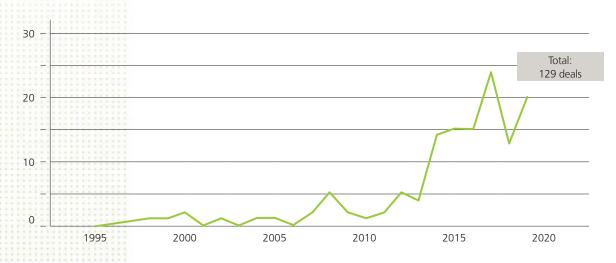
At the same time, the number of overdue invoices increased by 70% throughout Europe in March and April 2020.<sup>2)</sup> To generate short-term liquidity, companies tried, as an immediate measure, to extend or renegotiate their payment terms with suppliers to counteract the delayed (or outstanding) receipt of payments from customers. The study results show that potential negative effects on suppliers have either not been taken into account at all or only insufficiently – in particular the threat of insolvency or liquidity risks of SME suppliers.

<sup>17.</sup> https://www.nzz.ch/wirtschaft/covid-kredite-fuer-kmu-wie-leicht-kann-man-den-bund-an-der-nase-herumfuehren-ld.1551774

<sup>&</sup>lt;sup>2)</sup> https://fortune.com/2020/04/22/late-payments-soar-coronavirus-vendors/

# The SCF supplier market is a form of cooperation-based competition and is currently on a sharp upward trend

### Number of M&A deals and partnerships on the global SCF market 1)

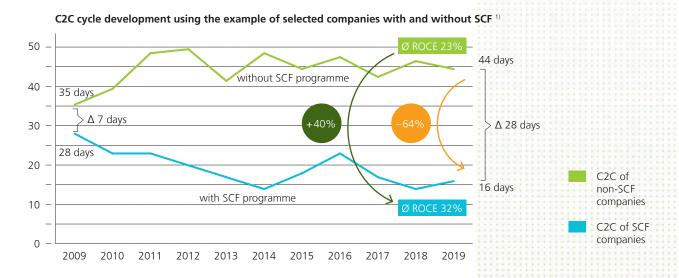


The SCF supplier market is a form of cooperation-based competition and has been on a sharp upward trend since 2010. While up to five SCF deals a year were concluded between 2000 and 2010, the figure stood at up to 24 a year between 2010 and 2020 – with the trend on an upward trajectory. There is a wide range of cooperation-based approaches, from traditional M&A transactions and venture capital investments to formal and informal partnerships – for example, joint ventures.

We are also seeing an increasing number of multi-consortium projects between several banks and technology companies which focus not just on the digitization of payment transaction processes, but also on facilitated access to working capital financing for companies. Cooperation-based competition is expected to increase further over the next few years and, in some cases, result in market shake-outs.

The analysis is based on secondary research carried out in the survey period from September 2019 to January 2020.

# Supply chain finance releases liquidity on a sustainable basis and has a positive impact on return on capital



If companies systematically optimize their WCM using SCF solutions, their financial performance improves on a sustainable basis. The study results indicate that companies that have systematically adopted a WCM strategy, including SCF solutions, since the financial and economic crisis are now far better placed in terms of return on capital.

In the group of companies using a SCF programme, not only is the capital tie-up period shorter – approximated with the C2C cycle – by 28 days on average (–64%), but financial performance – approximated with the ROCE – is also higher by nearly 40% (9 percentage points) on average. The strong WCM performance by SCF companies can be explained by the fact that their upstream suppliers – despite extended payment terms in some cases – are now paid substantially earlier. However, payment term extensions should only be requested from suppliers in a financially strong position; SME suppliers that are financially weaker need to be paid immediately (instant payments).

Sampling information: 224 companies (120 SCF companies and 122 non-SCF companies; 2009–2018 period; sector composition: 30% manufacturing, 17% mining, 16% retail trade, 17% services, 30% other); database: Thomson Reuters Eikon

# Regulatory aspects are the most important factors that hold back the penetration of SCF solutions

# In your view, how challenging are the following obstacles to the successful implementation of SCF solutions (e.g. reverse factoring)?



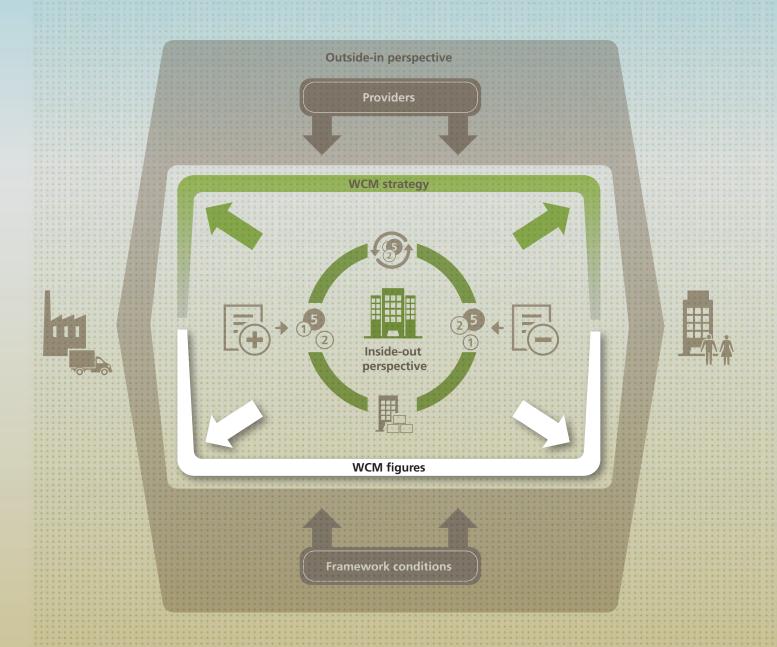
The survey indicates that complex contracts, the challenging legal regulatory framework and uncertainty over the reclassification of trade accounts payable are the most important factors holding back the penetration of SCF solutions. The accounting treatment of SCF solutions is fraught with uncertainty, because the involvement of SCF providers in the supplier/customer relationship can change the substance of payables (e.g. nature, level or time of payment) to such an extent that reclassification seems appropriate (e.g. accounting for payables as debt).

Providers of SCF solutions should therefore make contracts as simple as possible and ensure uniform standards for the accounting treatment of SCF solution, in dialogue with rating agencies, auditors and supervisory authorities.

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WCM figures

# WCM figures



9 WCM figures

Various facts and figures about working capital management since the coronavirus outbreak

CHF 14.6 bn

Just under 100,000 companies in Switzerland had received bridging loans worth a total of CHF 14.6 billion by mid-April 2020. 1)

+70%

The number of invoices that were past due by over 10 days increased by 70% on average throughout Europe in March and April 2020. <sup>2)</sup>

**97**%

The fintech PrimeRevenue recorded a record high in invoices available for early payment of 97% in March 2020. <sup>3)</sup>

**+80**% **▲** 

The financing volume of the SCF platform CRX-Markets increased by 80% compared to the previous year in 2020. 4)

**75**%

In a survey carried out in April 2020 amongst 500 SMEs in the USA, 75% of the companies indicated that they would probably have insufficient working capital reserves for the coming period. <sup>5)</sup>

**+208%** ▲

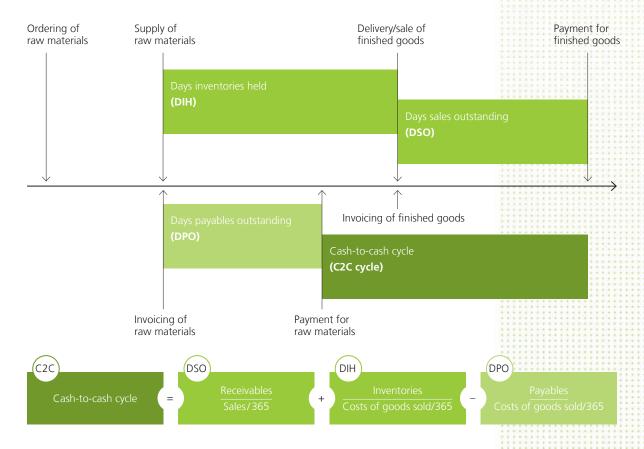
The SCF fintech Taulia recorded an increase in advance payment volumes of 208% in April 2020.  $^{6)}$ 

### Source details (as at April 2020):

- https://www.nzz.ch/wirtschaft/covid-kredite-fuer-kmu-wie-leicht-kann-man-den-bund-an-der-nase-herumfuehren-ld.1551774
- 2) https://fortune.com/2020/04/22/late-payments-soar-coronavirus-vendors/
- https://primerevenue.com/primerevenue-injects-critical-liquidity-into-global-economy-amid-supply-chain-disruption-sees-dramatic-spike-in-demand-for-early-payment/
- https://www.crxmarkets.com/en/blog/der-working-capital-marktplatz-als-chance-fur-stabile-lieferketten/
- 5) https://www.businesswire.com/news/home/20200420005327/en/
  - https://taulia.com/press/early-payment-volume-up-by-208-percent/?utm\_source=Social%20media&utm\_medium=LinkedIn&utm\_campaign=organic\_social\_media\_april\_2020

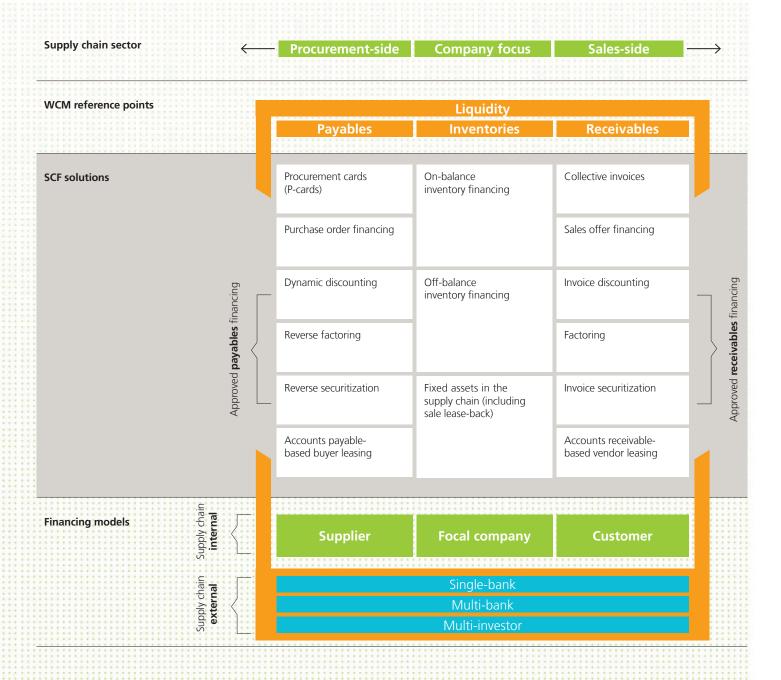
# The C2C cycle is an important WCM figure for managing a company's liquidity requirements

In WCM, the cash-to-cash cycle (C2C cycle) is a key indicator for evaluating the performance level of individual companies or sectors in relation to working capital management. This indicator reflects the cash conversion cycle at the company in days between payment to suppliers and inpayment by customers, including all days inventories held. The C2C cycle generally only covers the working capital of an individual company and consists of the following three components: DSO, DIH and DPO.

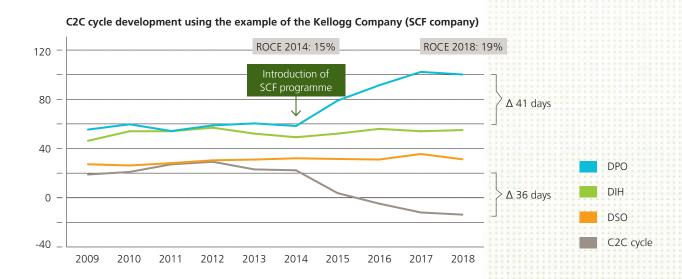


The C2C cycle is a useful indicator for identifying improvement potential in WCM. A high DIH value, for example, usually indicates inefficient inventory management. However, company-specific drivers and industry-standard characteristics must always be taken into account when interpreting time periods in the context of holistic WCM. A high DIH value may be completely justified if the availability of goods is a company's main target.

CFOs have a wide range of SCF solutions available to release inter-company liquidity



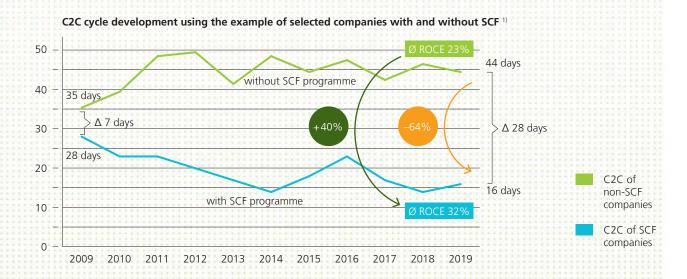
# Supply chain finance releases liquidity on a sustainable basis ...



If companies systematically optimize their WCM using SCF solutions, their financial performance generally improves over the longer term. This is well illustrated by the Kellogg Company – one of the world's largest cereal products companies. Since the introduction of its reverse-factoring programme in 2014, the average days payables outstanding has been increased by 41 days, reducing the C2C cycle by 36 days. The ROCE has increased by just under 27% since the launch of the SCF programme (from 15% in 2014 to 19% in 2018), which represents an annual growth rate of 6%.

Thanks to the introduction of the SCF programme, the Kellogg Company has even recorded a negative C2C cycle since 2016 and has more resources available for corporate growth due to the liquidity released. Kellogg's success with WCM is also due to the fact that upstream suppliers are now paid much earlier, despite extended payment terms. Depending on liquidity requirements and WCM strategy, further improvements can be achieved through the use of SCF solutions in the field of receivables (DSO) or inventories (DIH).

# ... and has a positive impact on return on capital employed



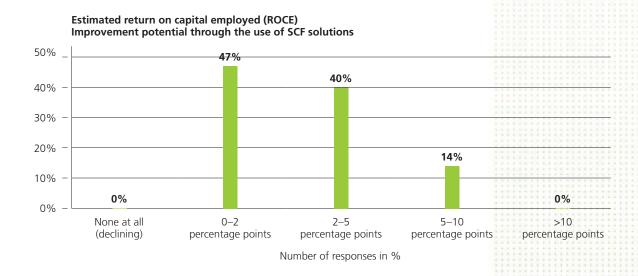
The positive performance effects experienced by the Kellogg Company are not a unique case and can also be clearly observed in a sector-wide analysis. In the group of companies that are currently using a SCF programme, not only is the capital tie-up period shorter by 28 days on average (–64%) – approximated with the C2C cycle – but the financial performance – approximated with the ROCE (return on capital employed) – is also higher by just under 40% (9 percentage points) on average.

What is also clear is that in 2009, when some SCF programmes were first deployed, the two groups of companies were very similar in terms of the capital tie-up period (difference of 7 days). This indicates that those companies which have systematically adopted WCM and SCF solutions since the financial and economic crisis are now far better placed in terms of WCM performance.

Since the coronavirus outbreak, if not before, the latter group of companies have also given WCM the importance it deserves by attempting to release the liquidity tied up in the supply chain. As a result, it is anticipated that the performance gap between the two groups of companies will narrow in future, and non-SCF companies will be able to catch up with SCF companies.

Sampling information: 224 companies (120 SCF companies and 122 non-SCF companies; 2009–2018 period; sector composition: 30% manufacturing, 17% mining, 16% retail trade, 17% services, 30% other); database: Thomson Reuters Eikon

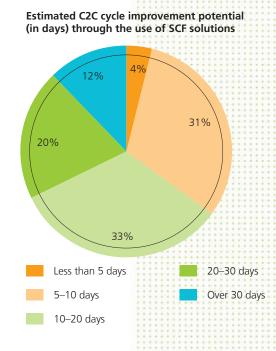
# The empirical studies are in line with the experiences of the WCM experts surveyed



SCF solutions can significantly improve the financing structure of companies and particularly help small and medium-sized enterprises (SMEs) to achieve a better negotiating position with investors. The extent of the specific potential for improvement to increase financial performance depends on various factors such as the size of the company, the degree of vertical integration and how suppliers and customers are structured.

In the view of the companies surveyed, the financial performance of companies (approximated with the ROCE) could be improved by up to 5 percentage points on average. A minority of 14% believe that up to 10 percentage points can be achieved. Those surveyed do not believe improvements of more than 10 percentage points are achievable.

With regard to C2C cycle optimization potential, around two thirds of those surveyed estimate that the C2C cycle can be reduced by up to 20 days through the use of SCF solutions. Around a third believe that well over 20 days is achievable.



15 WCM figures

# Companies have responded to the current coronavirus crisis with appropriate WCM measures

Unilateral and non-cooperative working capital initiatives – such as the short-term extension of payment terms for suppliers – should be avoided, especially during crises. This is because they are achieved at the expense of upstream supply chain partners and can indirectly backfire on your own company (e.g. due to supply shortages or reductions in quality). Various measures and activities which companies have used to maintain their financial leeway during the coronavirus crisis are listed below.



### Receivables

- Creating payment incentives with discounts
- Communicating with customers at an early stage to prevent any complete failures and to strengthen the partnership
- Assessing the use of factoring
- Invoicing completed orders immediately and requesting advance payment from critical customers
- Tighter monitoring of outstanding invoices
- Taking out trade credit insurance policies



### **Payables**

- Reaching bilateral agreements with suppliers in a financially strong position over the possible extension of payment terms
- Proposing payment in instalments
- Making full use of and, if possible, extending payment terms (if necessary using reverse factoring)
- Only using advance payments and discounts for suppliers in a financially weak position



### **Inventories**

- Focusing on key products and reviewing orders that are not absolutely necessary (suspending/delaying)
- Checking inventories and, for example, reducing levels for goods not required (special offers)
- Reviewing production to stock
- Looking for alternative suppliers at an early stage
- Adapting orders to actual demand in real time if possible

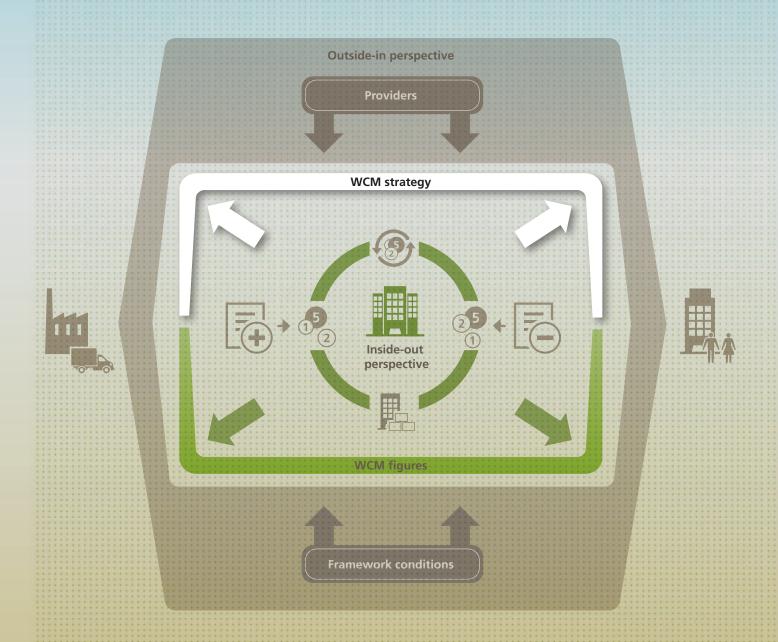


### Liquidity

- Approaching investors and owners at an early stage
- Using financial assistance
- Assessing the use of funding instruments
- Focusing on products with high margins
- Professionalizing liquidity planning and carrying it out more frequently
- Issuing specific directives on the cases in which payment delays (receivables) or advance payments (payables) can be granted

16 WCM strategy

# WCM strategy



17 WCM strategy

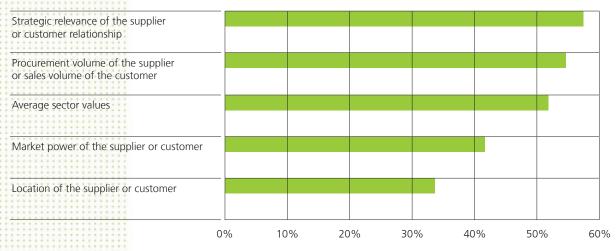
# Changing payment terms is popular at the moment – little attention is being paid to potential negative effects on suppliers

The WCM strategy defines long-term strategic thrusts and determines conduct towards customers and suppliers. The current coronavirus crisis has forced companies to make significant and immediate changes to their WCM strategy. Unlike the trend in previous years, the priority for companies at the moment is ensuring liquidity requirements are met in day-to-day operations.

As an immediate measure, SMEs and large companies have tried to extend or renegotiate their payment terms with suppliers to counteract the delayed (or outstanding) receipt of payment from customers, in order to generate short-term liquidity. They did so knowing that such a practice can have a negative boomerang effect and – where it affects SME suppliers – must certainly be considered as unethical.

As part of payment term negotiations with upstream and downstream supply chain partners, the companies surveyed take account of average sector values and geographical factors in addition to the strategic relevance of supplier and customer relationships. The bankruptcy and liquidity risks of the supply chain partners played a subordinate role at the time of the survey (March 2020).

# In your view, which factors should be taken into account to determine the length of payment terms with customers and suppliers?

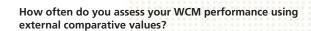


Number of responses in % (multiple responses can be given)

# Progressive companies measure their WCM performance using integrated key indicator systems

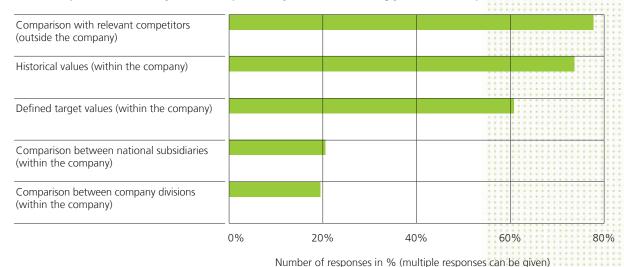
To assess their own WCM performance, the companies surveyed generally measure themselves once or twice a year on average using key-indicator-based comparative values of relevant competitors in their sector. Progressive companies manage their WCM performance not just with a single key indicator, but instead using WCM key indicator systems linked to specific measures.

Key indicator systems, which systematically monitor strategic and operational WCM measures, create transparency. Due to the limited validity of external comparative values, the companies surveyed also measure internal key indicators to assess their own WCM performance. In addition to the analysis of historical values, particular comparisons between individual national subsidiaries or company divisions are also carried out.





### Which comparative values do you consider particularly useful for assessing your own WCM performance?

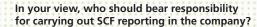


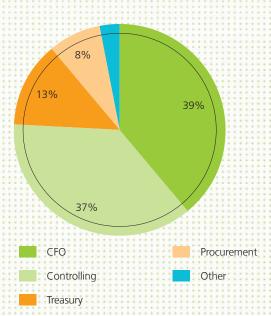
# Transparent reporting on the company's current SCF programmes is essential

How important do you think it is that companies continually measure the performance of SCF programmes?



A key task for CFOs and SCF managers is to develop relevant performance benchmarks to measure the progress of the SCF programme. 86% of those surveyed think it is quite to very important for companies to continually monitor the performance of SCF programmes (e.g. using quarterly internal reporting). Transparent reporting in real time plays a key role, especially in times of crisis.



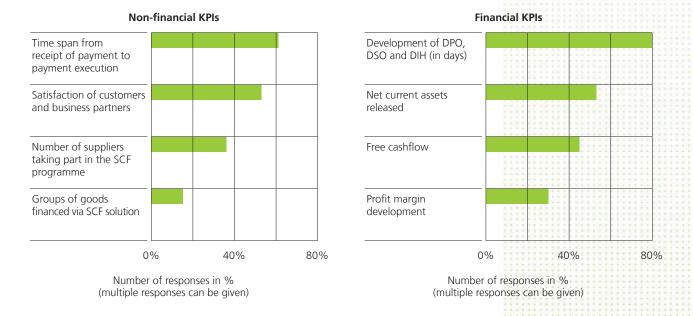


Innovative SCF providers are supporting companies with their SCF reporting and have generally integrated reporting structures on their SCF platforms, which can be modified to meet company-specific requirements. It is vitally important that all employees involved in the SCF programme clearly understand what the key figures gathered signify. Transparency over the measurement and survey procedure is essential.

39% of those surveyed indicated that the CFO and 37% indicated that controlling should be responsible for ensuring that the various management levels and function units obtain the necessary information about the SCF programme.

# The performance of SCF programmes should be assessed using financial and non-financial KPIs

In your view, which KPIs should be used to measure the success of an SCF programme?



Key performance indicators (KPIs) reveal whether SCF solutions are achieving their target and to what extent the strategic goals specified are being met in WCM. Relevant key indicators must be carefully selected and defined for each company to ensure that SCF solutions are managed strategically.

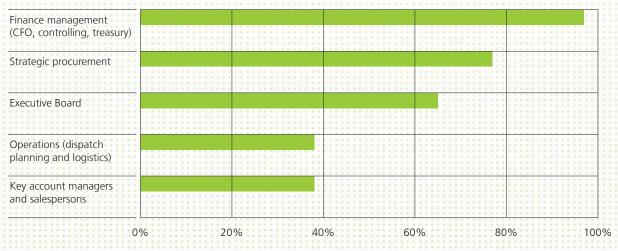
The most important non-financial indicators include the satisfaction of customers, suppliers and business partners, the average time span from receipt of payment to payment execution and the groups of purchasing or sales goods financed via the SCF solution.

The most frequently named financial indicators are the performance of C2C cycle components (DSO, DIH, DPO), the development of free cashflow and the performance of the profit margin.

21 WCM strategy

# SCF reporting is aimed at a wide range of stakeholders extending well beyond finance departments

In your view, which of the following internal stakeholders should be notified about the performance of current SCF programmes?



Number of responses in % (multiple responses can be given)

SCF reporting is an instrument whose importance should not be underestimated. The aim is to gather information on the current status of the SCF programme and to process it for a wide, cross-functional group of recipients in the company.

Over half of survey participants indicated that, in addition to finance managers in controlling and treasury (incl. CFO), representatives from procurement and sales as well as operations and logistics should be regularly notified about the performance of the SCF programme.

One reason for this is that companies often link SCF reporting with operational internal incentive and target attainment systems to ensure WCM goals are achieved. SCF reporting is also generally integrated into the existing financial reporting system and not carried out as individual (isolated) reporting.

Case study: Kühne + Nagel

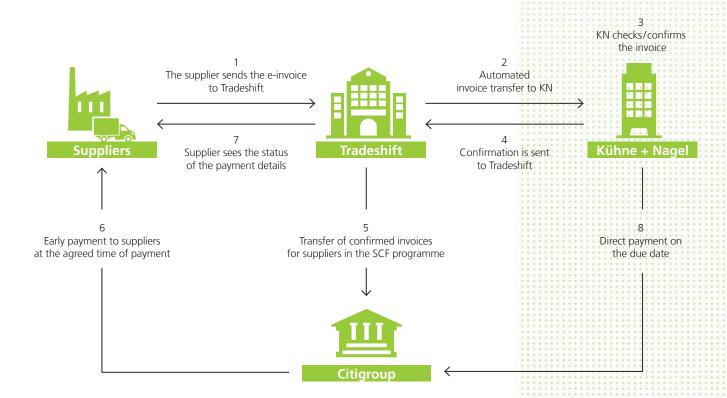
A global integrated e-invoicing and SCF solution...

### **Background**

Kühne + Nagel was faced with the trend of extending customer-side payment terms in many countries. To meet its own liquidity requirements, Kühne + Nagel found itself forced to adjust procurement-side payment terms without causing financial problems for upstream suppliers.

### Solution

Kühne + Nagel opted for the e-invoicing platform Tradeshift, a fully integrated e-invoicing and SCF solution. This solution enables Kühne + Nagel to standardize and modify supplier-side payment terms and to introduce early payment to suppliers by integrating a bank (Citigroup) and fully automated invoicing processes.



... for integrating numerous SME suppliers via the definition of payment terms



### **Qualitative benefits**

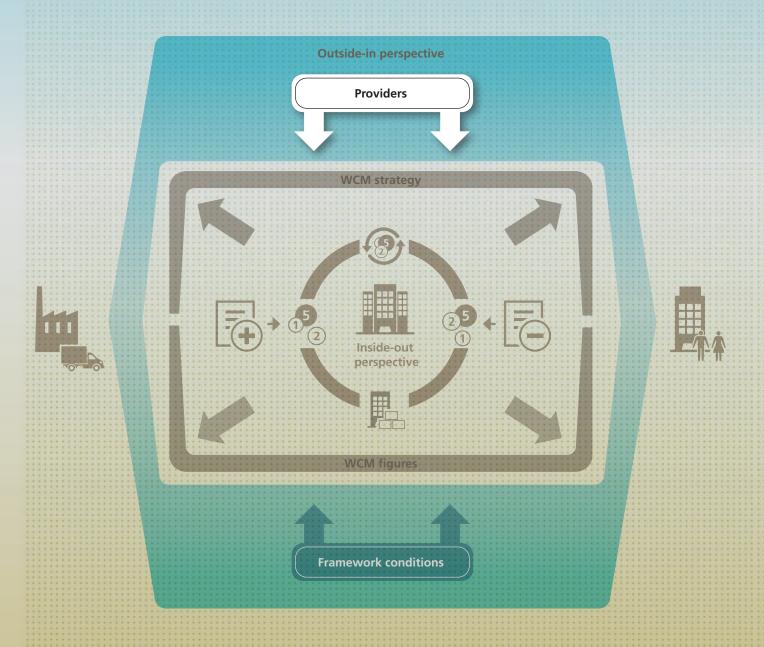
- Efficiency improvements through fully automated procure-to-pay process
   (e.g. shorter processing time per order)
- Status as preferred customer with strategic suppliers through faster payment
- Connection of suppliers with just one platform (Tradeshift). SCF information can also be accessed transparently
- Opportunity to achieve sustainable standardization of payment terms beyond supplier groups

### **Quantitative benefits**

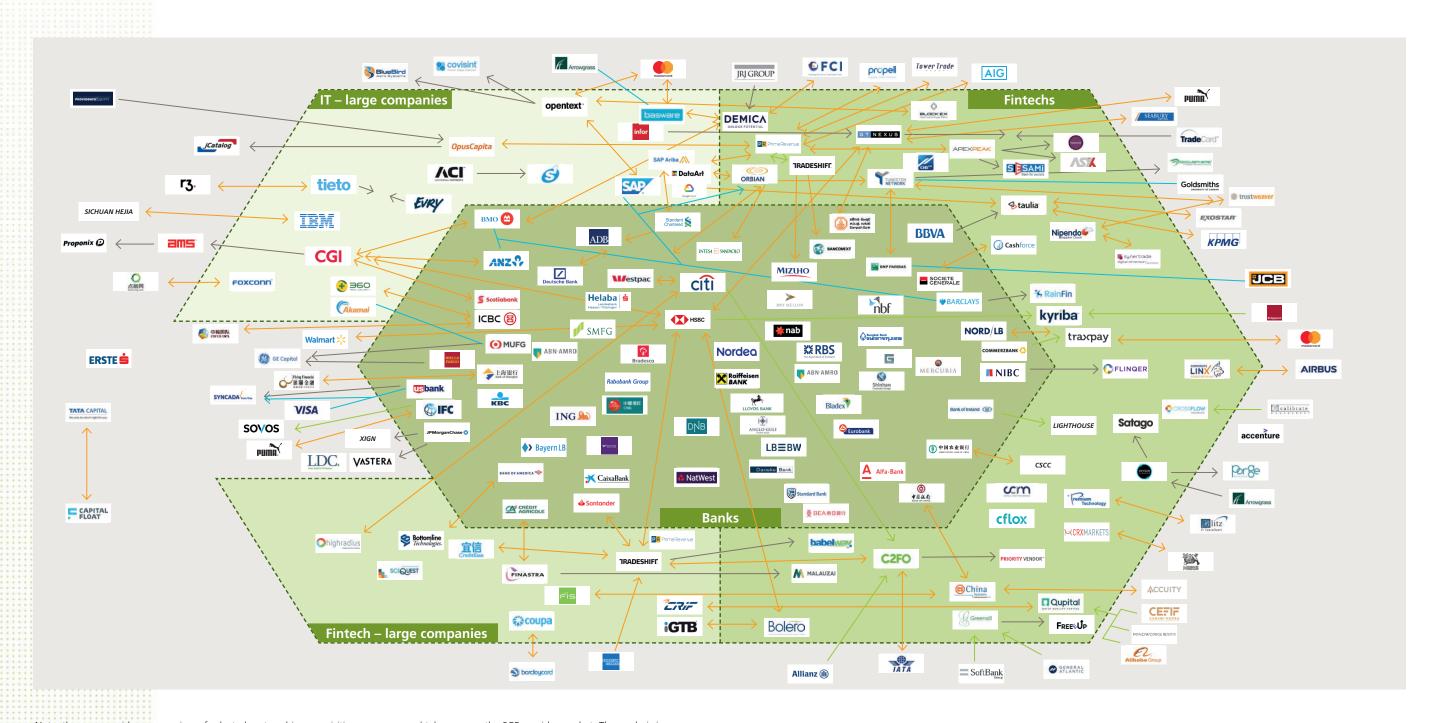
- Release of liquidity tied up in the supply chain (global SCF financing volume of over CHF 500 million)
- Significant cost reductions through the introduction of e-invoicing in over 40 countries (in particular, reduction of shipping and processing costs)
- The integrated SCF solution is used in 18 countries in Europe, North America, Asia and the Middle East;
   300,000 invoices are processed from over 500 suppliers
- Long-term improvement of the "days payables outstanding" figure by several days

24 Providers

# **Providers**

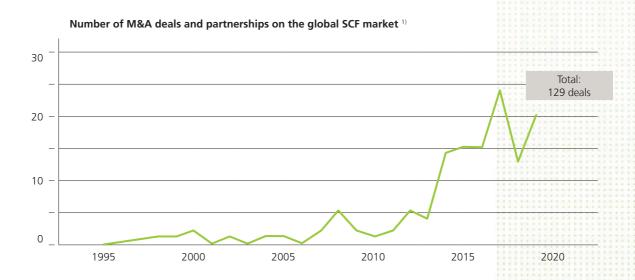


The SCF provider market is a form of cooperation-based competition and is highly dynamic



Note: the map provides an overview of selected partnerships, acquisitions, mergers and takeovers on the SCF provider market. The analysis is based on extensive secondary research of publicly accessible information and is not exhaustive. A total of 129 SCF deals were identified in the survey period from September 2019 to January 2020. Not all relationships have been marked for the sake of clarity (e.g. multi-bank consortium projects, such as Marco Polo or we.trade).

# M&A deals and partnerships on the SCF market have increased sharply over the past ten years



The SCF provider market has gained significant momentum since 2010 and is on a sharp upward trend. While up to five M&A deals and partnerships a year were concluded between 2000 and 2010, the figure stands at up to 24 a year between 2010 and 2020 – with the trend on an upward trajectory.

The players in the SCF ecosystem use a wide range of approaches to cooperate with one another. They include traditional M&A transactions, venture capital investment, consortium projects and partnerships (e.g. in the form of joint ventures). Most activities were identified between fintechs and banks. The latter group in particular aims to enhance

Fintech

Large IT companies

IT companies

Others

Banks

the capabilities of the partners involved and to open up growth potential that would not be possible without cooperation or a takeover. Fintechs also use the market position of banks to raise capital and to increase the value of their own companies.

<sup>1)</sup> The analysis is based on secondary research carried out in the survey period from September 2019 to January 2020.

<sup>2)</sup> The octagon shows the number of SCF deals between individual provider groups. The thicker the line, the more SCF deals were identified between the respective provider groups. The size of the dots reflects the number of SCF deals within the provider group.

27 Providers

# SCF deals are significantly larger, more capital-intensive and international

Geographical distribution of M&A deals and partnerships on the SCF market 1)



Not only has there been a sharp increase in continental and intercontinental SCF deals for some time, but also a significant rise in average transaction volumes. The acquisition value of the transactions identified currently ranges from USD 500,000 to USD 675 million. Meanwhile, the volume of venture capital investment stands at between USD 5 million and USD 200 million.

However, determining average transaction values is challenging due to different types of partnership and a lack of transparency over effective transaction prices in many SCF deals.





Transaction value (acquisition value) in USD

5 m to 200 m



Risk capital (venture capital funding) in USD

The figures in the tiles indicate the number of continental SCF deals, and the figures on the lines show the number of intercontinental SCF deals. The analysis is based on secondary research carried out in the survey period from September 2019 to January 2020.

**Providers** 

# Not all companies are satisfied with the SCF solutions provided by banks and fintechs

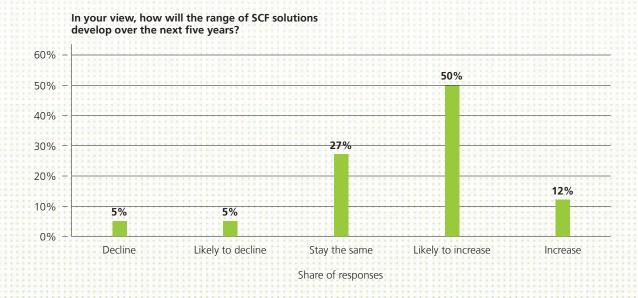
# How do you rate the SCF solutions provided by banks and fintechs based on the following criteria?

Range of solutions	33 %	49%	15%	
			110111111111	
Accessibility	27%	48%	23%	
Transparency	21%	48%	27%	
				Good
Interoperability	19%	50%	23% 5%	Quite good
				Average
Value for money	20%	60%	18%	Quite poor
			21071111111	Quite poor
				Poor

The SCF solutions provided by banks and fintechs are rated as average by the companies. There is potential for improvement in areas such as the accessibility, transparency and value for money of the SCF solutions provided. One reason for this moderate assessment may be that, in addition to the established SCF approaches, there are a number innovative approaches that are not very technically mature (e.g. multibank consortium projects based on block-chain technology).

Companies report problems with uploading their sensitive information and data (e.g. purchasing and sales prices or supplier and customer structure) on SCF platforms, as well as with maintaining control over their data in this virtual environment. There is also a lack of standards and a precise understanding of how companies can use such platforms to their advantage (e.g. through the tokenization of sensitive and confidential data).

# The range of SCF solutions will continue to increase in future



The majority of the companies surveyed anticipate that the range of SCF solutions will continue to increase over the next five years. This view is likely to be due to the background situation, as the ecosystem of SCF providers is currently influenced by strong market dynamics and has not yet fully developed.

At the moment, it is unclear how many providers will offer an extended range of SCF solutions in future. Growing competition on the global WCM financing market means SCF providers now need to track their main competitors and take advantage of potential synergies using new business ideas.

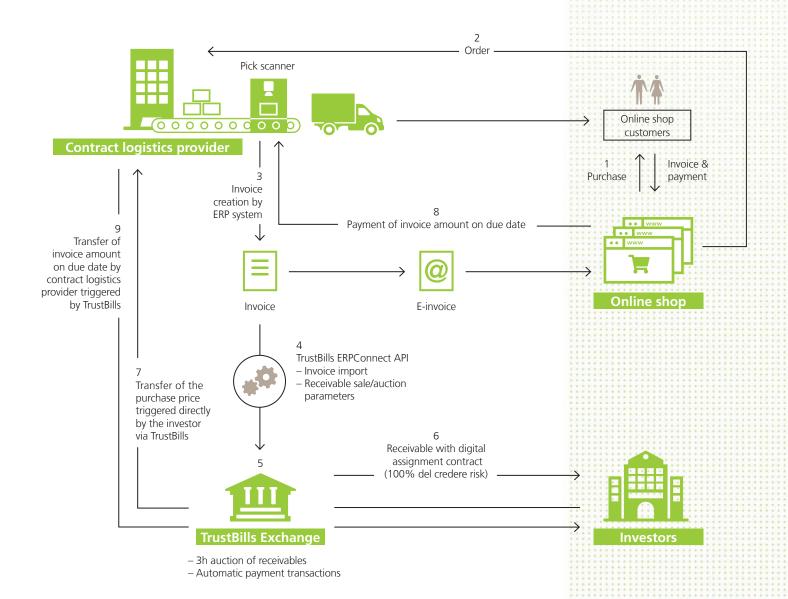
Besides growth in the range of SCF solutions, a wave of consolidation is anticipated, at least to some extent, as medium to long-term acquisitions and takeovers are no longer key strategic options. And we can expect cooperation-based competition to increase further (keyword: coopetition).

### Case study: contract logistics provider

Financing of company growth and expansion of storage capacity ...

### **Background**

A contract logistics provider took over the storage of products for various online shops as part of its core business. This means that every time goods were sold via an online shop, the contract logistics provider received the relevant information digitally and processed the order. Given increasing digitization, the service provider wanted to expand its business to additional online shops and new product segments, without assuming debt through new borrowing.



31 Providers

# ... without credit, but using a fully automated exchange for B2B invoices

### Solution

Using TrustBills, the fully automated exchange for B2B invoices, the contract logistics provider was able to increase its storage capacity, shorten its C2C cycle and serve additional online shops. More specifically, the receivables are sold to selected investors within three hours on the platform, and the purchase price of the receivables is credited to the account of the contract logistics provider on the following day. Thanks to the application programming interface (API), all sales parameters are maintained and a minimum price is set for the receivables. This means the contract logistics provider always has control over its capital costs, and achieves the best possible price thanks to the integrated auction procedure.

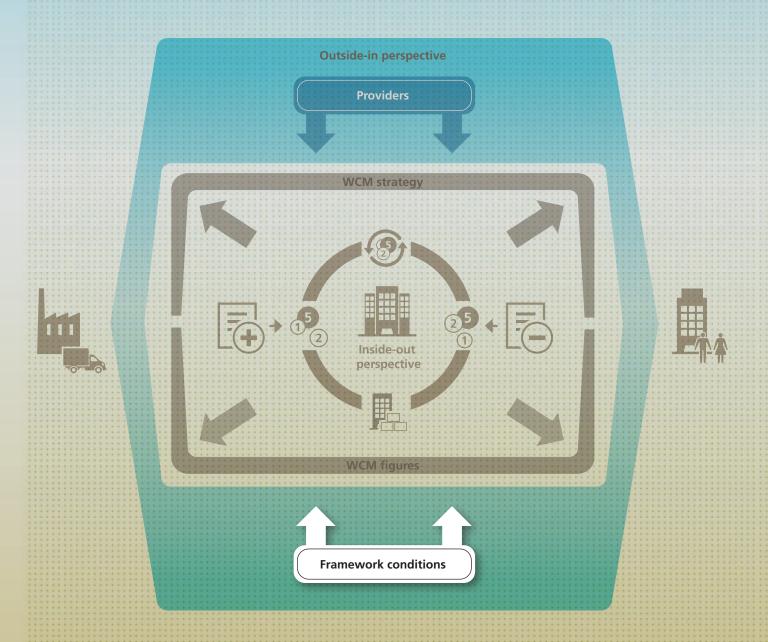
The receivables are sold in a silent process, i.e. the service provider does not have to involve its customers in the working capital financing. The del credere risks are also transferred to the investor. The platform enables an exchange on the assets side: receivables are moved off the balance sheet, and there is an inflow of liquidity. In turn, the contract logistics provider increases annual revenue and the turnover rate of its sales margin and makes more profit over the course of the year, which it can use to finance growth.



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Framework conditions

# Framework conditions



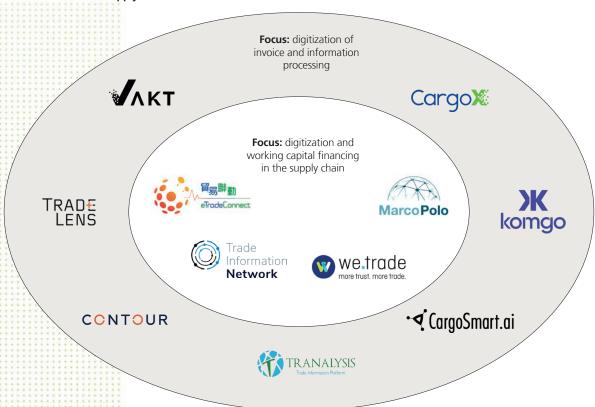
33 Framework conditions

# The infrastructure for international trade and payment transactions is undergoing digital upheaval

The duality of competition and cooperation on the SCF provider market is reflected in the increasing number of consortium projects between banks and technology companies. The overarching goal of these business combinations is to digitize the invoice processing and payment processes, to modernize outdated infrastructure and to establish new framework conditions for international trade.

Although the consortia are extremely diverse, we can essentially identify two groups: projects primarily focusing on the digitization and modernization of invoice and information processing (see consortia in the outer circle) and projects whose main aim – in addition to the digitization of trade processes – is to provide facilitated access to working capital financing for companies (see consortia in the inner circle).

# Selected consortium projects focusing on infrastructure in trade finance and supply chain finance



Framework conditions

Case study: decentralized infrastructure for commercial transactions

Trading with trade and supply chain finance ...

### Challenge

Despite the rapid pace of digitization, processes in international trade are still very time-intensive, involve lots of paperwork and feature only limited automation. The documentary credit business, for example, requires dozens of paper documents, which have to be processed by various parties (e.g. exporters, importers, banks, insurance companies, logistics service providers, customs and tax authorities, etc.). Paper documents are also relatively easy to forge despite the high cost, and there is only a limited amount of trust, which is the fundamental idea behind credit. So the working capital requirements of many companies (especially SMEs) are not met in many ways.

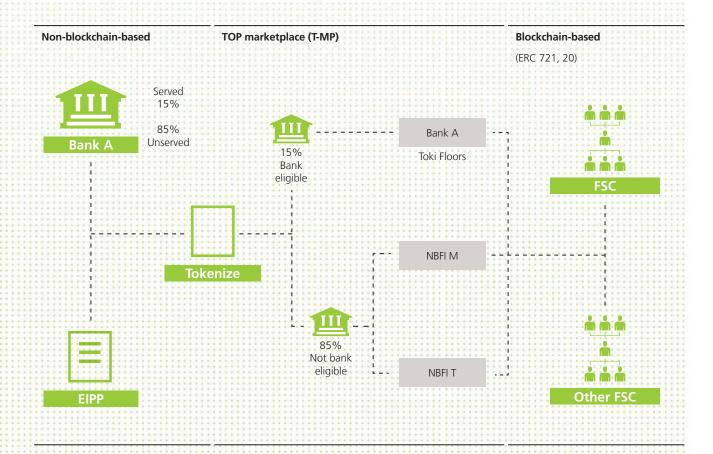
Against this backdrop, demand for digitized platform solutions in international trade has continually increased over recent years. At the same time, more and more providers of trade and SCF solutions are expanding their business to gather, process and monetize trade data. Many companies are adopting a cautious approach and have security concerns: who is gathering my data? Who does the data belong to? And who is responsible for the data?



# ... on a global and decentralized platform based on blockchain technology

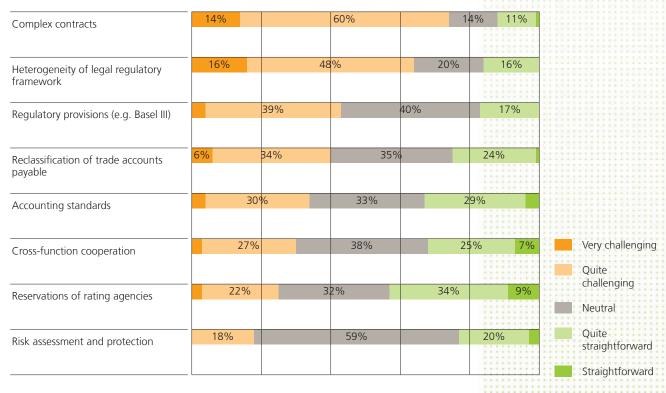
### Solution

Tallyx's decentralized platform simplifies the processing of global commercial transactions and creates benefits for external providers' trade platforms, as well as their customers and associated trading partners. The special feature of this solution is that existing trading platforms can be merged on a single platform. It doesn't matter whether they are blockchain-based or not. The platform and the infrastructure that lies behind it don't just focus on the financing gap experienced by SMEs, but also address the interface issue in international trade as a "network of networks". The platform enables the financing of direct suppliers as well as upstream suppliers (keyword: deep-tier supply chain financing).



# Legal and regulatory aspects are the most important factors holding back the implementation of SCF solutions

# In your view, how challenging are the following obstacles for the successful implementation of SCF solutions (e.g. reverse factoring)?



There are many inhibiting and facilitating factors affecting the implementation of SCF solutions, and these require in-depth operational and financial system expertise. Complex contracts, the challenging legal regulatory framework and uncertainty over the reclassification of trade accounts payable are generally seen as the most frequent obstacles in the implementation process. Cross-functional cooperation is perceived as an inhibiting factor by around a third of those surveyed.

The study results indicate that legal and regulatory aspects are the most important factors holding back the process of implementing SCF solutions. Providers of SCF solutions should therefore make contracts as simple as possible – with the involvement of the regulatory authorities – and adapt them to companies' specific requirements.

37 Framework conditions

# The uncertainty over the accounting treatment of SCF solutions is gradually easing

How important do you consider the following aspects in avoiding the reclassification of trade accounts payable as part of SCF solutions?

Interest and fee payments		45%		33%	17%	
between customers and SCF providers						
Release from buyer's obligation through early payment to suppliers	17%	39%		38%	6%	
Freedom of choice for suppliers not to have to continuously take part in the programme	18%	37%		34%	10%	Insignificant
						Quite
Conformity of payment term extension with industry standards	11%	45%		37%	6%	insignificant
						Neutral
Absolute change in the volume of payables	18%		51%		27%	Quite significant
						Very significant

Rating agencies, auditors and supervisory authorities have increasingly scrutinized the accounting treatment of reverse factoring programmes over recent years. This is because the involvement of SCF providers in the supplier/customer relationship can change the substance of payables (e.g. nature, level or time of payment) to such an extent that reclassification seems appropriate from an accounting perspective (e.g. recognizing payables as debt).

However, to avoid reclassification of trade accounts payable, the experts surveyed indicated that particular attention should be paid to ensuring that they are clearly differentiated from the characteristics of financial liabilities. It is important to ensure that the customer does not benefit from transactions between suppliers and SCF providers (e.g. through the receipt of fee or discount payments). In this regard, it is pleasing to note that auditors are increasingly drawing up guidelines to help companies determine the most suitable type of classification.

# Annex



# Key terms and explanations

- Accounts payable-based buyer leasing is a financing solution for reducing the investment-related capital commitment
  of purchasing companies. It enables the usage-oriented provision of capital goods.
- Accounts receivable-based vendor leasing is a financing solution used in particular for the sale of capital goods.
   It enables companies to provide capital-intensive products as a package in combination with a financing solution and is usually provided in cooperation with a leasing company.
- Advanced analytics covers a wide range of research methods that enable companies to analyse data which cannot be
  evaluated using traditional data processing methods due to its complexity, dynamics and structure. These include methods
  such as big data, predictive analytics and data mining.
- At-shipment financing is an innovative financing solution that enables the financing of goods during transport based
  on a track and trace system. Real-time data is used to create real risk profiles for financial service providers and to make
  transport inventories accessible for external financing as early as possible in a supply chain.
- Automation in the narrow sense refers to systems able to perform tasks and resolve problems independently (autonomously).
   One of the aims of automation in the context of WCM is to reduce manual activities and processing.
- Blockchain-based inventory financing refers to the financing of inventories within a supply chain using distributed-ledger technology and smart contracts. Compared to current inventory financing solutions, an extended portfolio of inventories can be financed (more cost-effectively) through increased transparency and data quality.
- Blockchain technology: A blockchain is a decentralized database in which monetary units or securities can be managed.
   Blockchain technology is based on smart contracts which not only check individual contractual conditions but also implement them automatically. The technology thus enables faster and more cost-effective processing of transactions.
- Cash pooling refers to liquidity balancing within the group using central finance management that removes excess liquidity
  from group companies or balances liquidity shortfalls through loans.
- Cash-to-cash cycle (C2C cycle): Compared to static analysis of working capital, the C2C cycle enables a dynamic view of WCM. A dynamic view means that the cycle between liquidity and outgoing and incoming payments is recorded. The C2C cycle also enables good external comparability through which potential savings can be determined compared against various internal and external benchmarks. The indicator is also clear, easy to understand and can be calculated from publicly accessible data sources without great expense. Because of different cost accounting practices at companies, sales instead of manufacturing costs are used to calculate DIH and DPO in this study. This change enables external comparability but results in a reduction in accuracy. As well as the strengths of the C2C cycle, its weaknesses must also be taken into account in the evaluation of the study analyses. A first point of criticism is that the approach is susceptible to "balance sheet manipulation". The external comparability is at the expense of accuracy; for example, changes during the year are not adequately taken into account. Finally, it should be noted that the approach does not take account of the actual level and "quality" of the capital commitment.
- -: Collective invoices is a form of billing where a cumulative invoice is sent to a customer for several deliveries per period.
- **Dynamic discounting** is an SCF solution where the purchasing company offers the supplier earlier payment of the invoice. In contrast to conventional discounting, dynamic discounting uses dynamic payment methods and is generally conducted via a dynamic SCF platform available on the market. If a supplier makes use of the early payment option, a dynamic discount applies. The earlier an invoice is settled, the higher the discount.
- Factoring refers to the commercial, revolving transfer of a company's accounts receivable to a financial service provider
  or a factoring company. Factoring as an SCF solution provides companies with an increase in liquidity while at the same time
  reducing financing costs and unpaid invoices. Genuine factoring occurs when a factor assumes the credit risk. If the risk
  of loan loss is not assumed, this is referred to as recourse factoring.
- Financial hedging is used to protect transactions against financial risks, such as price and exchange rate fluctuations.

- **Fintech (financial technology)** is a general term for technologically driven financial innovations and is often equated with companies that provide new kinds of financing instruments and services.
- Holistic working capital management (WCM): the business-oriented reduction of working capital (e.g. through the systematic extension of days payables outstanding (DPO)) can have a negative impact on relationships with customers and suppliers and result in liquidity bottlenecks. In view of this, holistic WCM takes account of the interests of the supply chain partners and aims to improve the integration of information and simultaneously reduce the capital tied up within a supply chain.
- **In-house bank:** This represents an important part of modern treasury management and aims to centralize risk management, group financing and payment transactions.
- Instant payments are electronic payments processed within seconds and credited from one bank to another without any
  intermediary.
- Invoice discounting: In contrast to conventional factoring, invoices for accounts receivable are not sold to a factoring company with invoice discounting, but are instead used only as collateral for short-term financing (asset-based lending approach). The use of digital invoice discounting platforms provides companies with flexible access to liquidity while also reducing the risk for external financial service providers through increased transparency.
- Invoice securitization is an SCF solution where accounts receivable are sold. In contrast to conventional factoring, accounts receivable are bundled and converted into short-term securities and offered to a broad base of investors on the capital market via a special purpose vehicle (SPV). The payment default risk is generally assumed by the investors.
- Level of maturity: Companies' level of maturity is determined to identify best practice approaches and optimization potential. Recommended courses of action are provided by the average value of the best 10 companies (top 10) in a specific WCM field compared with the average value of the entire sample.
- Off-balance inventory financing refers to the financing of inventories where operational goods logistics and ownership
  are transferred to an external logistics service provider. This results in a reduction in costs due to lower storage and logistics costs
  and an increase in liquidity through a reduction in the capital tied up in inventories.
- On-balance inventory financing is an instrument for financing inventories. In contrast to the off-balance solution, the
  inventories remain on the purchasing company's balance sheet with the on-balance solution and serve only as a guarantee
  for a credit agreement (asset-based lending approach).
- Preferred customer refers to a long-term management strategy through which a purchasing company stands out from
  other competitors by providing exceptional products and services for suppliers (e.g. rapid settlement of invoices). Companies
  become preferred customers if they succeed in structuring the relationship between their procurement and the supplier's sales
  units better than their competitors.
- Preferred supplier refers to a long-term management strategy through which a supplier stands out from competitors through
  exceptional products and services (e.g. the provision of generous payment terms). Companies become preferred suppliers if
  they succeed in structuring the relationship between their sales and the procurement organization of the customer concerned
  better than their competitors.
- Procurement cards (P-Cards) are a form of business customer card (often in credit card format) and enable goods and services to be purchased from predefined suppliers without a traditional procurement process. P-Cards are generally used for smaller purchases to achieve greater cost efficiency and control. The bank managing the transaction makes the corresponding payments to the payment recipient within days, while it issues the customer company with an invoice on a monthly basis.
- Purchase order financing is an SCF financing solution agreed between purchasing companies and suppliers to achieve financing at an early stage (at the time of the order). It is a kind of advance payment.

- Reverse factoring is a conventional SCF solution which essentially enables a customer to obtain pre-financing of liabilities from their supplier. With reverse factoring, a factoring provider concludes a contract with the buyer of goods (purchasing company) in which it undertakes to pre-finance the liabilities of its suppliers. Key requirements that have to be met for the successful implementation of a reverse factoring solution are good creditworthiness of the purchasing company and the onboarding of suppliers onto an SCF platform.
- Reverse securitization is an SCF solution where, in contrast to traditional invoice securitization, the entire credit risk
  is concentrated in the initiating purchasing company. The assets to be financed are sold to a special purpose vehicle (SPV) at
  a discount and then sold to private and institutional investors on the capital market.
- Return on capital employed (ROCE) is an economic indicator which shows how efficiently a company uses the capital
  available to it.
- **Sales offer financing** refers to financing solutions that suppliers use to promote the sales of their products and to create financial flexibility for customers (e.g. through the use of payment by instalments).
- Self-financing capacity: This indicates the extent to which companies can make investments without having to rely on
  external financing sources.
- Smart contracts are blockchain-based computer protocols which enable customer and supplier contracts to be shown
  and verified digitally. Because agreed provisions are set out digitally in smart contracts, they can be executed and implemented
  in a decentralized and autonomous manner.
- Supply chain finance (SCF) extends the perspective of WCM to the entire supply chain and addresses the company-wide optimization of financial structures and payment flows in company networks. The aim of SCF solutions is to create added value for all parties concerned by adopting a holistic approach to financial processes between suppliers, purchasing companies, and external financial and logistics service providers.
- **Trade credit insurance** insures outstanding receivables from services provided for customers.
- Working capital: Various definitions of working capital exist in theory and practice. Working capital is essentially
  the capital required for business operations minus current liabilities. The latter is often equated with liabilities from supplies
  and services.

# Methodology and background to the study

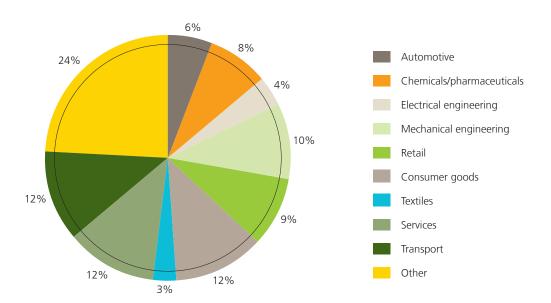
The starting point of the WCM Study 2020 was the supply chain-oriented view of WCM at Swiss companies and the focus topic of supply chain finance (SCF). The study examines the following key issues:

- Which WCM approaches and SCF solutions can companies use to manage the economic consequences of short-term and long-term liquidity shortfalls?
- How much liquidity can be released with SCF financing solutions and what implications can be drawn from this for Swiss companies?
- How has the SCF provider market developed over the past 20 years and in what direction is it heading?

### Methodology

The WCM Study 2020 is based on primary and secondary data which was initially analysed in a differentiated manner based on the individual topics and then interpreted in a correlated manner. Both qualitative estimates and quantitative information were used for this. All information and data was thoroughly checked, validated and systematically prepared.

### Sector affiliation of study participants



### Information sources

The WCM Study 2020 is based on two data sources:

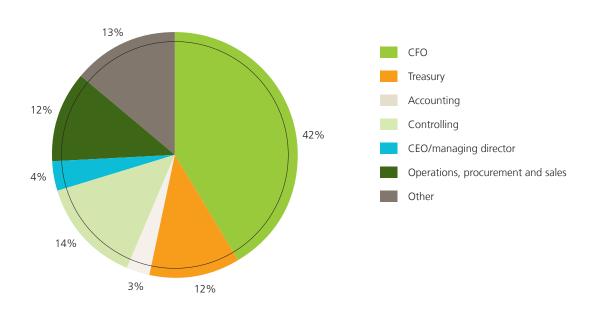
- 137 questionnaires (WCM expert survey 2020)
- Economic and financial databases (in particular, Bloomberg and Thomson Reuters Eikon)

The external data sources were used for the calculations in the WCM figures section in particular. All further evaluations are based on the questionnaires carried out during the period February to April 2020 as part of the WCM expert survey 2020. The survey focuses on the Swiss market and various issues concerning WCM and SCF. In order to provide greater depth to the results, interviews were also carried out with selected study participants.

### **Study participants**

The WCM Study 2020 covers several sectors to provide the most comprehensive insight possible into WCM at Swiss companies. The sample includes companies from over ten different sectors, whereby large corporations (over 250 employees) account for 56% and small and medium-sized enterprises 44%. The balanced composition of the sample aims to increase the representative nature and generalizability of the study results for the Swiss market.

### Function of the study participants



### Supply Chain Finance Lab

The Supply Chain Finance Lab (SCF Lab) at the University of St. Gallen conducts research on financial supply chain management at the interface between knowledge and application. The research activities focus on the broad and not clearly distinct topics of working capital management and supply chain finance. The annual WCM Study and the Swiss WCM Awards are a major part of the SCF Lab's activities.

### **WCM Study**

The WCM Study was published for the first time in 2014. It sought to determine the current performance level of Swiss companies in WCM and to identify good practices. With its focus topic of supply chain finance, the WCM Study 2020 builds on these objectives and provides valuable impetus for creating financial flexibility for the entire supply chain.

### Swiss WCM Awards

The Swiss WCM Awards recognize outstanding overall working capital management performance and innovative solutions that make a significant contribution to improving WCM over the long term. The jury of the Swiss WCM Awards is made up of the following high-level experts:

- Prof. Dr. Erik Hofmann (Chairman of the jury and Director of the Institute for Supply Chain Management at the University of St. Gallen)
- Adrian Brönnimann (Head of Sales for Corporates & Banks at PostFinance Ltd)
- René Cotting (Head of ABB Technology Ventures and Head of Operation, Innovation and R&D at the ABB Group, former CFO ABB Switzerland)
- Pascal Koradi (Member of the Management Board of the CFO Forum Switzerland)
- Rolf Renz (Former CFO Siemens Region South West Europe and Siemens Switzerland)
- Mario Rossi (CFO and Head of Business Steering Switzerland at Swisscom)
- Stephan Zehnder (CFO of the Bossard Group)

# Further studies and recommended literature

### WCM Studies from previous years:

- Hofmann, E., Wetzel, P. (2019): Working Capital Management Study 2019 Supply Chain Finance Follow-up.
   Supply Chain Finance Lab of Swiss Post at the University of St Gallen, Berne.
- Hofmann, E., Wetzel, P. (2018): Working Capital Management Study 2018 Supply Chain Finance Introduction.
   Supply Chain Finance Lab of Swiss Post at the University of St Gallen, Berne.
- Hofmann, E., Martin, J. (2017): Working Capital Management Studie 2017 Digitalisierung.
   Supply Chain Finance Lab of Swiss Post at the University of St Gallen, Berne.
- Hofmann, E., Martin, J. (2016): Working Capital Management Study 2016 Trends.
   Supply Chain Finance Lab of Swiss Post at the University of St Gallen, Berne.

### Selected literature recommended by the authors:

- Templar, S., Hofmann, E., Findlay, C. (2020): Financing the End-to-end Supply Chain: A Reference Guide to Supply Chain Finance. London: Kogan Page, 2nd edition.
- Wetzel, P., Hofmann, E., Köpple, F. (2020): Supply Chain Finanzierung in der Automobilindustrie.
   Controlling Zeitschrift für erfolgsorientierte Unternehmenssteuerung, 32 (2), 12–20.
- Wetzel, P., Movcharenko, A. (2019): Das adäquate Niveau an Net Working Capital. Controlling & Management Review, 63 (6), 22–30.
- Wetzel, P., Hofmann, E. (2019): Supply chain finance, financial constraints and corporate performance:
   An explorative network analysis and future research agenda. International Journal of Production Economics, 216 (100), 364–383.
- Martin, J., Hofmann, E. (2018): Towards a framework for supply chain finance for the supply side.
   Journal of Purchasing and Supply Management, 25 (2), 157–171.
- Hofmann, E., Strewe, U., Bosia, N. (2017): Supply Chain Finance and Blockchain Technology:
   The Case of Reverse Securitisation. Heidelberg: Springer.
- Hofmann, E., Schneider, C., Wetzel, P. (2017): Working Capital Management bei Eisenbahnverkehrsunternehmen.
   Controller Magazin, 42 (5), 4–13.
- Hofmann, E., Johnson, M. (2016): Supply Chain Finance some conceptual thoughts reloaded.
   International Journal of Physical Distribution & Logistics Management, 46 (4), 1–8.

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