

Thought leadership series



Supply chain finance

The key link to an efficient supply chain

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Foreword

Introduced in the 1990s, the concept of supply chain finance (“SCF”) relates to the process of optimizing the availability and minimizing the cost of capital within a buyer-centric supply chain of an organisation. The channels facilitating such optimisation are accentuated by the aggregation, integration, packaging and utilisation of specific information, which in itself on one hand is generated within the supply chain framework and on the other, is capable of facilitating marginal costing, cost management and various SCF strategies.

The term SCF can also be broadly interpreted to encompass financing solutions that strengthen the chain of activities between buyers and sellers. Considering the fact that in the current global environment “risk management” is the buzzword and that a risk can emanate either from a buyer or seller, the role of SCF is becoming increasingly more prominent, especially while developing credit driven solutions.

In recognition of the importance of the concept of SCF on the sustainability of a business, Mazars has conducted a survey based assessment with the objectives of analyzing various elements of financial flows within the supply chain and comparing these with in-house hypothesis from our experts in supply chain management (“SCM”), enterprise wide risk management, financial flow modeling and business strategists. This publication has a special focus on France, some prominent economies of Europe and developing nations across the globe. Although the sectors of aerospace and automotive were of particular interest while concluding this study and assessment, we have also covered the intricacies of SCF in other sectors as well. The methodology adopted to prepare this thought leadership publication essentially encompasses Anglo-Saxon research, interviews and feedback.

Given that 73% of large corporations of today are seeking to extend payment terms with their suppliers to combat their liquidity crunch, without negatively impacting the supply base, it has been interesting to see innovative measures that are being taken to strengthen and effectively utilise SCF in several organisations.

This publication also delves deeper into the intricacies within a multiplicity of alternative scenarios relating to SCF, while also assessing key features such as balancing credit, financing options, inventory management and other supply chain variables that optimise working capital. We hope to provide you with a balanced perspective of the concept of SCF and its importance in today’s business world by analyzed challenges, possibilities of tripartite collaborative approaches and assessed what may potentially unfold in the immediate future. We are confident that you will find this thought leadership publication useful to your business.



Hervé Hillion
Partner, Consulting
Head of Industries

Executive summary

In the past two decades, the corporate world has seen sea changes in the way businesses are being conducted, particularly from the perspectives of their geographical spread of operations, sourcing and distribution of products. The concept and utility of SCM too has been evolving to keep pace with these changes, with a progressive and conscious migration to electronic management of input flows. Consequently, systems and processes are being made more stringent and certain routine business activities now involve innumerable checks and handoffs. When these activities are managed and harmonised efficiently across the enterprise, the result is in a form of a powerful synergy within the business.

However, many organisations still struggle to manage silos of information that are drawn manually from a myriad of disparate systems. On occasions, such information is duplicated, making it difficult for financial controllers to create what is often termed as 'one version of the truth'. In addition, an extended supply chain poses a daunting challenge not only to manage specific activities, but also financial flows across the supply chain. By developing a system that integrates the finance function with the rest of the organisation and utilises information flows with trading partners within its supply chain effectively, significant savings in terms of time and costs can be attained.

Traditionally, marketing, distribution, planning, manufacturing and the purchasing functions along the supply chain have operated independently. These functions have had their own objectives, which on occasions were somewhat conflicting. While the marketing function's objective of high customer service and maximizing sales could potentially conflict with manufacturing and distribution goals, several manufacturing operations have been designed to maximise throughput and lower costs with little consideration for their impact on inventory levels and distribution capabilities. Our research and assessment also indicates that various purchase contracts too have often been negotiated with very little information beyond historical buying patterns. The result of these factors has been that there has been not one single, integrated plan for the organisation - in fact in some cases there were as many plans as businesses. Clearly, the need for a mechanism through which these different functions can be integrated together was felt and SCM is seen as a strategy through which such integration can be achieved.

SCM has also been typically viewed to lie between fully vertically integrated firms, where the entire flow of material is owned by a single firm and those where each channel member operates independently. Consequently, coordination between various players in the chain is the key to its effective management. Our research shows that some large organisations view production processes and workforce as two key

“The need for a mechanism through which different functions of an organisation can be integrated together was felt and supply chain management is seen as the strategy through which such integration can be achieved.”

“Supply chain finance analyses impact of supply chain on cash management, working capital and financial risk at a time when factors like globalisation and the increasing instability of financial markets are profoundly defining the dynamics of organisations.”

ingredients of competitive advantage in global trade and consequently are striving to achieve an effective level of automation in the same. To keep up with the growth in global trade and to combat increased competitive pressures, corporations are increasingly focusing on their supply chain operations. Traditionally, planning, purchasing, manufacturing, supplying, distribution and marketing were the main divisions that operated relatively independently in an organisation. We have already seen that these divisions have their own objectives which are often conflicting.

Since its emergence, SCM has made reflective changes in strategies, organisations, practices and information systems to aid industrial manufacturing and service oriented organisations have made significant progress on cost reduction, service improvement and competitiveness. Does this therefore mean that the supply chain has reached their level of maturity and is always well adapted to the challenges of the world today and the future? While there is no definite answer to this question, strides of progress in various circumstances are indeed taking place in SCM. At the same time nothing is certain, since three factors have profoundly been changing the dynamics of organisations - financial aspects of business, globalisation and the increasing instability of financial markets.

The financial aspect of the SCM has been ignored for long, both at the theoretical level (with very little academic research on the subject) as well as on the practical aspect, as supply chain has remained confined to the control of physical flows and associated information flows. As a result, several organisations have not concentrated on the impact of supply chain on cash management, working capital, financial risk or the return on assets.

SCF is gaining importance for a number of reasons. Given the combination of downward cost pressures with steadily increasing raw material, energy, and labor costs globally, it appears that the total cost of ownership of strategic sourcing is no longer enough. Moreover, in their rush to implement low cost country sourcing programs, many organisations have implemented non-optimal global sourcing and outsourcing programmes. These programmes are challenged with one or more unintended consequences which often remain hidden until the programs and fundamental strategies are examined from a SCF perspective.

This publication sheds new light in dimensions related to financial aspects of supply chain and open new lines of thought and action to improve the overall performance of companies through better integration of product, information and financial flows across the supply chain.

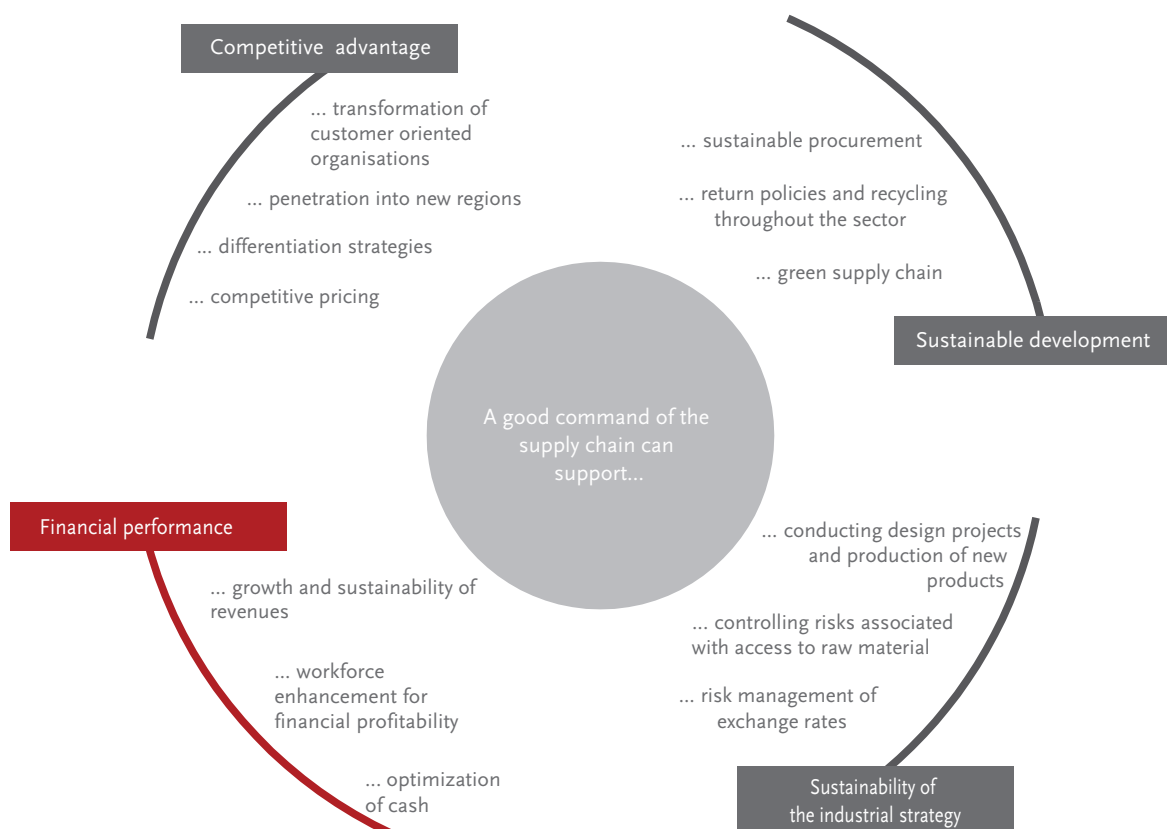
Supply chain management and finance – an introduction

Supply chain management

A supply chain is a network of facilities and distribution options that perform the functions of procurement of materials, transformation of these materials into intermediate and finished products and the distribution of these finished products to customers. Supply chains exist in both service and manufacturing organisations, although the complexity of the chain may vary greatly from industry to industry and organisation to organisation. In the last two decades, SCM has emerged as a major component of industrial enterprises and services, while integrating suppliers, manufacturers, warehouses and distribution centers.

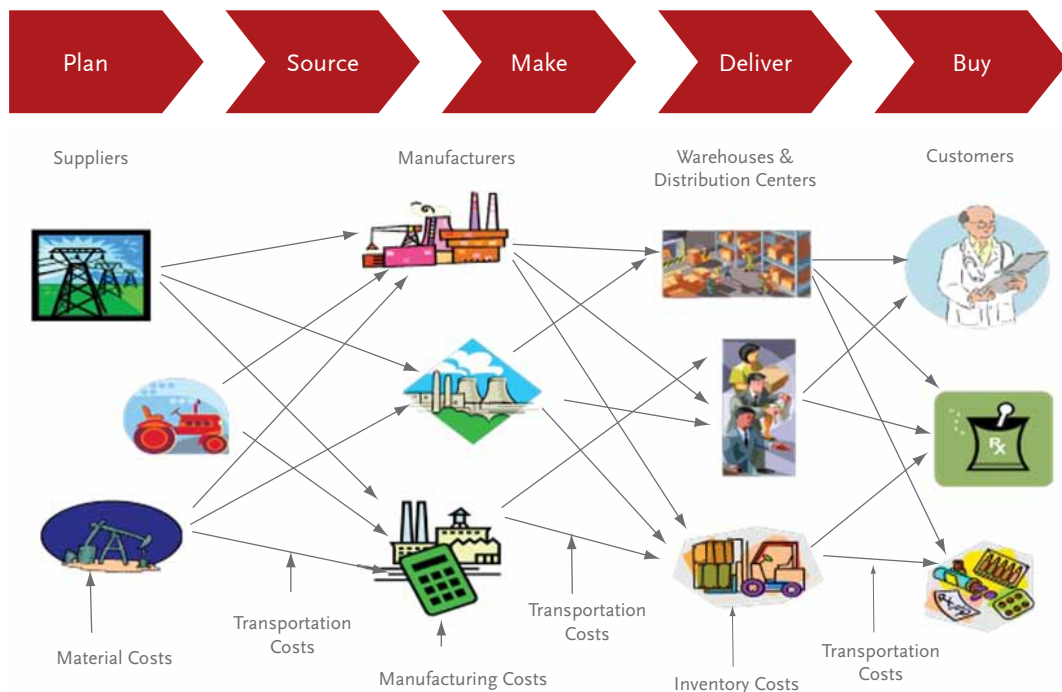
An effective SCM framework goes a long way in facilitating production efficiencies; minimizing system-wide costs and meeting high levels of service delivery. While in some ways, SCM still remains confined to the management of products and information flows relating to operations, it is becoming increasingly more evident that its impact on the financial statements of organisations is considerable.

The ensuing representation shows a few advantages of an efficient SCM in the overall development and growth of an organization.



SCM is not only a key contributor to the economic and financial performance of an organisation; it also plays a critical role in the control of operational and financial risks. This aspect was even more evident during the economic meltdown in 2009, with the perpetual focus on destocking and restocking by several manufacturing units. Even in the current year, supply disruptions as a consequence of consecutive tsunamis in Japan, eventually delayed production and delivery and had a domino effect on the financial performance and projected economics of several sectors.

Traditionally, SCM integrates four key business processes and workflow management; namely, tactical planning, manufacturing, supply and distribution. Significantly the more strategic dimensions such as design of distribution networks do not find a strong focus in the traditional SCM processes. Tactical planning inevitably integrates sales forecasts to inventory planning, while bringing harmony in activities relating to receipt of supplies and dispatch of deliveries. Manufacturing involves all activities associated with production and ex-factory, whereas distribution focuses more on the planning of delivery and execution of orders to achieve the desired levels of delivery to the end customers. The ensuing graph provides a snapshot of a traditional supply chain.



It is a fact that several efforts have been made, particularly over the past two decades to optimise several of these processes, both in planning at the operational level as well as the treatment of physical and information flows. Based on our research, in many cases the impact of an effective SCM on the

business performance was found to be significant, especially with regard to enhanced customer service, reduced logistics costs and improved inventory turnover.

Although SCM has proven to be integral to the efficient working of businesses, it can suffer from certain limitations. Our research has shown that with supply chain lengthening as a result of globalisation and offshore production, several companies have experienced challenges associated with the flight of capital. In addition, several organisations have also faced severe pressure to improve their cash flows or enhanced working capital requirements (“WCR”) with increased stress exerted by their overseas suppliers, especially where the payment terms have been extended.

Supply chain finance

Several organisations are seeking innovative solutions to address their SCF requirements. The role of SCF is also significant due to the fact that the global need for management of supply chain is huge. Our research shows that while only a small percentage of organisations are currently using appropriate SCF techniques, more than half have plans or are investigating options to implement various techniques in the foreseeable future.

SCF provides a fallow reserve opportunity that can be utilised through a systematic application of proven methodologies for SCM. Over the past two decades, organisations have sought to leverage on advanced techniques management of process excellence in order to fundamentally transform their physical supply chain. In the same way, there has been a revolution in deployment of information technology and usage of internet, resulting in large leaps in their information chain.

Our research shows that although future requirements and credentials are being evaluated on a real time basis and the lead time to deliver products has gradually shortened to hours from the erstwhile weeks and days, it still takes on an average 35-40 days or sometimes even more to settle financial transactions. Consequently, the working capital which gets blocked due to a long period for settlement of the financial transaction is enormous. Our research shows that the cost of working capital is estimated to be over 1% of the annual revenue of an average fortune 500 company and in some cases much higher. The optimisation of working capital has traditionally been the part of finance function which is also faced with the challenge of ensuring availability of funds, reducing risks and improving interest yields on cash. In this, the accounts payable and accounts receivable functions have been driven more by efficiencies in transaction processing rather than by the motive to drive improvements to the financial supply chain.

Our research shows that relatively limited attention is being paid to integrate supply chain finance management (“SCFM”) of organisations across their trading partner network. There is also a tendency to seek the optimisation of supply related processes without adequately balancing financial flows across the network of trading partners. While organisations have fairly well established policies and standard terms for payments and discounts, often relatively less attention is provided to the relative value of financial assets and liabilities. Historically, companies have managed the physical supply chain without much emphasis on the financial aspect but the current scenario is changing and a clear focus for mid-size to large organisations today relates to the chain of financial transactions.

In a true sense, SCFM is not a product; rather, it is the key to developing streamlined financial processes that are designed to integrate with an organisation’s physical supply chain and produce a positive impact on the business. It allows chief financial officers (“CFO”)s to compare performance through a comparison of key indicators vis-à-vis projected outcomes, while at the same time helping them keep a close eye on external factors such as industry trends, competitors or peers. In addition, SCFM allows CFOs to identify the amount of working capital within their organisations’ assets that is tied in the overall ‘cash to cash’ cycle. This also facilitates an assessment of whether the organisation is obtaining its optimum level of balance between role and rewards. Conversely, SCFM also allows CFOs to identify the financial burden of supporting their current physical supply chain in terms of interest charges, as well as the cost of labour and other overheads.

Consequently, SCFM’s role is to optimise both the availability and cost of capital within a given buyer-supplier supply chain. It does this by aggregating, packaging and utilizing information generated during supply chain activities and marrying this information with the physical control of goods. Such coupling of information and physical control enables lenders mitigate their financial risk within the supply chain. Such mitigation of risk allows more capital to be raised, capital to be accessed faster and capital to be raised at lower rates.

The need to increase capital or inject capital into the supply chain more quickly is triggered by several factors like global market trends, buyers look to optimise their balance sheet by delaying inventory ownership, suppliers looking to obtain funds earlier in the supply chain at favorable rates, as middle-market companies looking to monetise inventory to increase their liquidity. However, these factors have also prompted organisations to demand an integrated approach/solution to challenges related to SCF and measures to overcome the same.

As discussed in the ensuing chapters, SCF benefits three parties, viz. buyer, supplier and the financial institution which plays a key role in ensuring smooth operation through financial support. Some major advantages of SCF (to all the three parties involved) have been summarised in the ensuing table.

Buyer	Seller	Bank
Reduced cost of goods purchased	Reduced cost of capital through improved Daily sales outstanding (“DSO”) and lower finance costs.	Stronger, collaborative relationships with customers
Reduced WCR through improved Days Payable Outstanding (“DPO”)	Generation of flexible, predictable cash flows	Enhanced customer retention
A more stable supply base	Access to low-cost finance rates	Increased bottom line by supporting customers’ entire supply chain from end to end
Provision of a basis to negotiate improved commercial terms with suppliers	Provision of option for accelerated payments	Increased profitability with lower capital requirement (especially in the light of Basel III)
Improved vendor relationships by providing access to new and cheaper sources of funding	Provision of alternate sources of liquidity (e.g., off-balance sheet financing such as securitisation)	Increased top line by supporting clients’ entire supply chain end-to-end
Reduced cost of payment processing	Better financing costs (depending on credit quality and industry)	Increased reach and profile of trade and treasury organisations
Better cash flow management	Provision of visibility and facilitation of reconciliation of payments with invoices (faster dispute management)	Efficiency gains among clients create growth potential, leading to an expanded need for banking services
	More predictable cash flows	

The initial models of SCF combined domestic trade finance with SCM through innovative invoice financing arrangements known as “reverse factoring”. This is a three-way agreement by which a financial organisation purchases the receivables of the supplier with legal recourse to the buyer. In its initial stages, reverse factoring was purely a domestic service offered within select industries, especially the automotive sector.

SCF has now emerged a strong tool for credit financing of supply chain requirements of many large organisations as they source their raw materials from SMEs around the world. The key enabler was the development of technology platforms with innovative features like SCF platforms that connected counterparts across the world and made it possible for multiple credit providers to compete on financing. In fact, SCF is a rare example of a tripartite value proposition for financial institutions, buyers and suppliers.

Importance of supply chain finance

Recent exigencies like the financial crisis, increasing prices of material and natural calamities such as earthquakes, tsunamis etc., emanating in some of the significant supplier centric countries of the world, have changed the face of the world for businesses today. This is a grave reminder of how the world is interconnected and the consequent vulnerability of supply chains of organisations. It is also important to understand the impediments in implementing SCF and how these may be successfully overcome through the meticulous use of SCF tools.

Stakeholders in the supply chain are particularly susceptible and this creates the need to continuously refine drivers such as cash management, working capital management etc. Our research shows that while several medium to large organisations across sectors have initiated programs to improve collaboration with customers and supplier networks, there are some stiff challenges affecting operational efficiencies and service that need special attention.

Organisations today are more collaborative along the supply chain compared to a decade ago. Sharing of forecasts, pooled inventory management (various forms), diffusion and deployment support are currently seen as good practices in SCM. It is clear that the performance of a supply chain can no longer be considered in isolation of its network of suppliers and its customers. Such a collaboration takes several forms and the same is also imperative to avoid distortion of information and miscommunication. The general policy of having a single supplier exacerbates the concentration of risks posed by the failure of a single player in the entire chain.

Most organisations require significant amounts of working capital to deal with the varied and somewhat unpredictable financial inflows and outflows. Interestingly, until recently the management of financial flows remained somewhat obscure in terms of generally accepted best practices; however over time it became clearer, both in terms of opportunities to more efficiently integrate and accelerate the payment channel between the stakeholders and in assessing the risk-sharing between customers and suppliers. When viewed collectively, the management of financial flows seeks to address challenges such as slow processing, unreliable and unpredictable cash flows, suboptimal credit decisions etc and ascertainment of the optimal level of working capital.

The debate in the ensuing paragraphs throws more light on the impact of the economic crisis on the relationships between large organisations and their network of small and medium sized suppliers.

2.1. Limits of collaborative best practices

The concept of SCF is rapidly changing shape, while expanding more broadly into a suite of financial solutions that support domestic, regional and global supply chains. The speed at which markets and competitors are changing, imposes tremendous pressure on the entire supply chain for a quick turnaround. There has also been an acceleration in the adoption of SCF solutions in the wake of the recent global financial crisis. Several large organisations in particular, have managed remarkably well and have adapted to the latest crisis by preserving cash, while using credit lines at very competitive rates and also extinguishing debts at the same time. However, many of their suppliers, who play an integral part in the supply chain and in running the business, have not shared the same level of success in managing the current set of challenges. They have seen an extension of their payment periods, enhanced pressure on prices, difficult cash situations and increasing difficulty of funding from financial institutions, which is mainly due to the scarcity of bank credit and interest rates being raised by the banks.

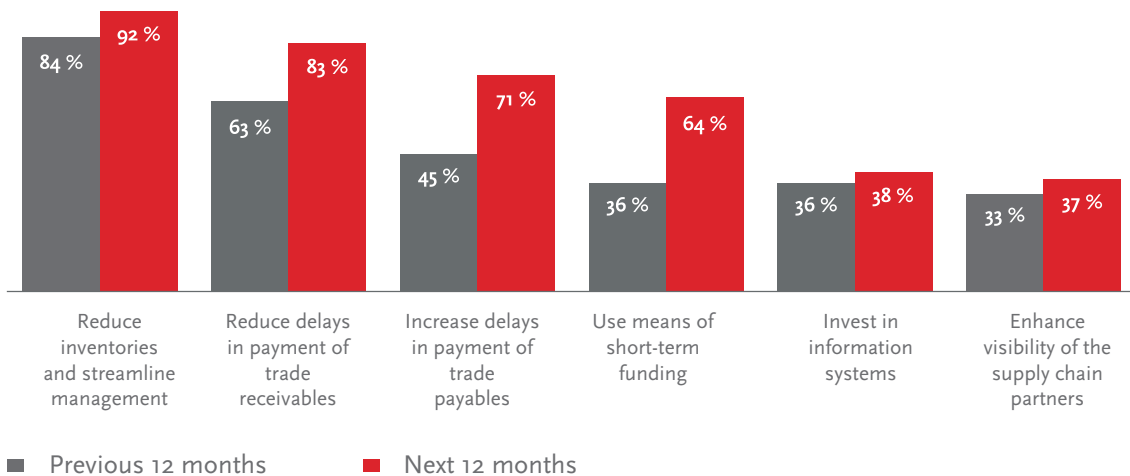
The recent global financial meltdown led to tightening of credit and labour markets and increased fiscal risks resulting from higher expenditures. As a consequence of this fiscal austerity, 55% of the top 100 USA contractors in 2008-2009 faced enhanced pressures in meeting price margins and delayed in paying suppliers in order to address their liquidity problems*. Such delays in payments to suppliers, eventually exacerbated their working capital problems. In 2008 and 2009, governments across the world introduced stimulus aids during the financial market meltdown in order to combat the already deteriorating financial situation. Moreover, the effect of this pressure was aggravated in 2010 when the stimulus programs of these governments started ending. This fact is substantiated by the case of the automotive industry in Europe where the failures of small and medium enterprises (“SME”) due to insolvency doubled in 2009-2010 (about 100 failures in 2009 against 45 in 2008).

It is clear that the problems of financing and cash are now the weakest link of the supply chain and can destroy all efforts that have been made to improve the “end-to-end” operational performance. Weak balance sheets of suppliers pose just as great a risk to companies as potential operational problems of the suppliers. By rationalizing their supply chains during the financial meltdown, many organisations have inadvertently become more reliant on fewer suppliers due to financial constraints. In the meanwhile, those suppliers have sought to use their customers’ balance sheets to fund their WCR. Although significant progress has been made in recent years in the planning and management of supply chain, particularly, in terms of collaborative information sharing between stakeholders, it has not improved their ability much to “take the shock” of a hazard or a major crisis. One of the main reasons, we believe, is the disconnection of financial flows with the world of supply chain operations. The weakening of suppliers and inadequate funding and cash in the aerospace, defense and automotive industries illustrate this fact despite the existence of programs to improve the

* Source: World trade magazine, survey of 100 largest US companies, 2010.

performance of suppliers through implementation of collaborative or other initiatives (partly funded by manufacturers). As per the figures published in the Aberdeen, working capital optimization, benchmark report 2008, significant changes in the strategy undertaken by organization to maximize their cashflows were noticed. The following chart depicts this further.

Actions taken and to be taken by organisations to maximize cash flow from their supply chain in 2008.



Source: Aberdeen, Working Capital Optimisation, Benchmark Report 2008.

2.2. Consequences of differences in operational and financial practices of supply chain management

Globalisation has gradually transformed the value chain especially in the sectors of automotive, aerospace, defense and electronics, with the emergence of major suppliers (manufacturers, system integrators), international partners and cohesive working between the chain of upstream suppliers and subcontractors. Principals too have refocused on activities of design and final assembly (it is common to see 70 to 80% of the value added activities now being outsourced). However, with today's elaborate global supply chains and decentralisation of the manufacturing process through off-shoring and outsourcing, the ultimate responsibility of organisations to take things in their own hands through all stages of the sourcing process does not change. Outsourcing has also somewhat complicated the control of the supply chain to the extent that it is necessary to synchronise a cascade of players who are no longer in direct contact with the principal organisation and therefore more distant from the reality of the customer. At the same time, it is more difficult for a principal to anticipate supply disruptions, which are associated with suppliers of rank 2 and beyond and therefore, are difficult to foresee.

The setbacks suffered by Boeing illustrate this situation where the outsourcing of industrial programs was pushed to the extreme without providing adequate

visibility on the financial capacity of suppliers to mitigate program delays and ramp-ups. In the case of Boeing B787 where 80% of production is outsourced, Boeing finally had to resort to reinternalisation of its production line in July 2009 by acquiring the supplier factory “Vough Aircraft”. Besides this, the risk of losing control of suppliers, even small ones, is significant and can affect the organisation substantially. It was due to the additional costs incurred by unexpected delays in the B787 program, largely due to suppliers, that margins at Boeing fell from 4.2% to a negative 1.7% between 2008 and 2009*.

The transformations of organisational models of the supply chain have resulted in major changes in the financing needs that balance financial risks between stakeholders. The involvement of suppliers very early in the co-design of products and projects, requires financial efforts in research and development, along with investment and risk taking in significant industrial capacity. However there are aspects which are taken as safeguards in the context of production volumes, which have considerable room for improvement. The unpredictability and unreliability of certain factors have also lead to lost opportunities for enhanced value creation. In the automotive sector, half of the costs of research and development are directly supported by the suppliers, posing a significant risk for them to not get return on their investments in case of unilateral projects, interruptions or failures in other parts involved in the production chain.

In the recent years, tremendous strides have been made in the context of supply chain efficiencies – with a focus on sharply reducing lead times, having lower inventories, increasing variety and having greater collaboration in terms of activities associated with planning and forecasting along with improved customer service. But in some respects, the performance of financial flows is still at the same level as they were in 1990’s. It is therefore of urgent necessity to change financial practices, which are consistent with the new organisations and new forms of operational management of supplier relations. Clearly there are abundant opportunities along with challenges that lie ahead in managing financial flows in supply chains. The global financial meltdown and changing supply chain strategies have reinforced not only the need for better visibility of cash flows and risks, but also the need to innovate, both in funding collaborative steering risks and the inventory management model. In the following chapters we have provided expert lines of thoughts and actions, which help address challenges associated with the control of transactions in SCF

2.3. Insufficiency of operational and financial indicators

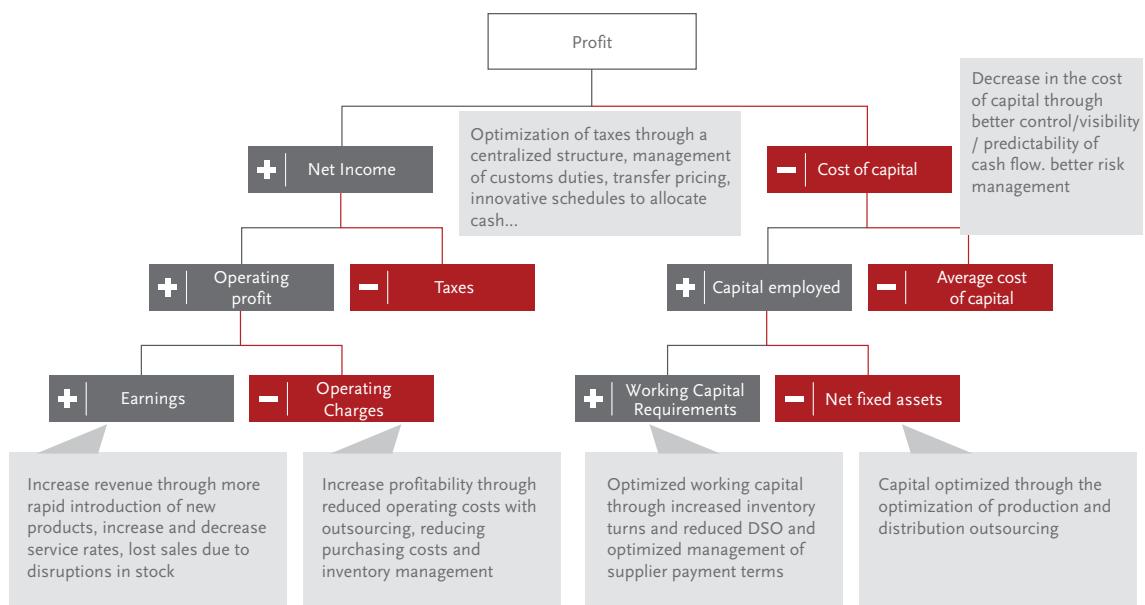
The supply chain is faced with a rising complexity of products, structures and processes, which have arisen due to a variety of reasons. Organisation specific causes, like inefficient organisational structures or weak level of standardisation in efforts on one hand and industry wide trends such as globalisation, shortened product life cycles and stronger customer orientation accompanied by

* Source: Euler Hermès, November 23, 2010.

heterogeneous and specific customer demands on the other are some aspects that create complexities. In the current environment, it is important not only to recognise the bane of the challenges and complexities but also to manage the same effectively, given supply chain's co-relationship with an enterprise wide success.

Many efforts have been made in the last century to integrate financial issues within the SCM techniques of process excellence. With this, a strong focus is been laid on sharing financial information throughout the supply chain and on developing indicators, which indicate the financial dimensions for each industrial process. These to certain extent assist in controlling the financial risks and their adaptation to inherent processes. Different aspects of the business are impacted by SCM as shown in the ensuing chart.

Impact of SCM on the value of an organisation



Source : Mazars 2011

The impact of supply chain operations on the financial situation of companies has been confined to simple cost factors. In particular, under the influence of the dogma of zero stock for the past 20 years, the problem of inventory management has often been reduced to seeking the minimum cost (operating as well as capital asset) without corrupting the level of service, even though stocks are by themselves considered an asset with their own benchmarks of profitability and volatility.

The optimisation of portfolios related to stock must reflect a balance between maximizing returns with respect to planned sales and management of risks. At the same time, as provided in the ensuing table, key performance indicators ("KPI")s can relate to the performance of business processes (efficiency, reliability, flexibility etc.) and contribute to economic ratios (costs,

capital etc.) of an organisation. However, there are three major points for consideration:

- First, the matrix does not address systemic risks that increase with a large network of suppliers, particularly because of the financial fragility of the smallest supplier. Such risks are exacerbated by the tremendous networking that exists in today’s supply chains;
- Secondly, none of these indicators measure the “liquidity” of supply chains; in other words the ability to generate cash and the level of reliability; &
- Finally, they do not, in any way, affect the extent of “resilience” of the supply chain i.e. the ability to maintain operating conditions, acceptable profitability, in addition to taking into account the risks that is related to all externalities (market demand, suppliers etc.)

Examples of the financial impact of operational risks that are commonly measured and indicators commonly implemented to address SCM issues are provided in the table below.

Process / activity	Indicators commonly used	Impact on the income statement				Impact on the balance sheet			
		Turnover	Cost of sales	Selling & administration	Need working capital	Inventory valuation	Trade receivables	Payables	Fixed assets
Planning	Turnaround time of an order	X			X	X	X		
	Flexibility in supply chain	X	X	X		X			
Purchases	Time delivery rate	X	X					X	
Production	Operating cycle				X	X	X	X	
	Rotation of stock				X	X	X	X	X
Delivery	Time delivery rate	X					X		
Performance	Total cost-supply chain		X	X		X			

Source : Mazars 2011

2.4. Adapting financial risks to the business processes of an extended supply chain

The indicators commonly used to measure the performance of the financing of a supply chain are the general liquidity ratios ($[(\text{Total current assets} - \text{Stock}) / \text{Total current liabilities}]$). Due to their static nature, additional indicators have evolved that integrate with the vision-based accounting for assets / liabilities (to measure the efficiency of working capital) and the business vision based on physical flows and information (to measure the performance of the supply chain).

Following are some indicators that are commonly used for assessing the financial performance of a supply chain:

Indicators	Calculation method	Vision of the supply chain
“Cash conversion cycle” or “Cash-to-cash cycle” (Richards & Laughlin, 1980) (Gentry, Vaidyanathan & Lee, 1990)	$\text{Number of days of receivables}$ $+ \text{Number of days of inventory}$ $- \text{Number of days of payables}$ $= \text{Cash conversion cycle}$	<ul style="list-style-type: none"> – Measures the time during which the cash is immobilised between purchases and sales – Isolates each step of planning, purchasing, manufacturing, delivery
“Net trade cycle” (Shin & Soenen, 2000)	$(\text{Receivable}) / (\text{Net sales}) \times 365 \text{ days}$ $+ (\text{Stocks}) / (\text{Net sales}) \times 365 \text{ days}$ $- (\text{Payables}) / (\text{Purchase}) \times 365 \text{ days}$ $= \text{Net trade cycle}$	<ul style="list-style-type: none"> – Expresses the working capital as a function of the expected increase in sales
“Comprehensive liquidity index” (Scherr, 1989)	$\frac{(\text{Short-term assets}) \times (1 - 1/\text{Ratio asset turnover})}{(\text{Short-term liabilities})}$	<ul style="list-style-type: none"> – Describes the assets and liabilities adjusted for changes in cash

Some other key performance indicators to assess financial flows include the following:

- Days of Working Capital (“DWC”) = $(\text{Working Capital} / \text{Annual Revenue}) \times 365 \text{ Days' Sales}$
- DSO = $(\text{Accounts Receivable} / \text{Annual Revenue}) \times 365$

- $DIO = (\text{Inventory Value}/\text{COGS}) \times 365$
- $DPO = (\text{Accounts Payable}/\text{Annual Revenue}) \times 365$

DWC can be easily converted into an equivalent metric of working capital as a percentage of annual sales. (For example, if a company's DWC is 50 days, then working capital as a percent of annual sales is $50/365 = 13.7\%$)

Other important characteristics of financial flows are:

- Reliability of payment methods;
- Predictability of payment inflows and outflows;
- Improving cash flow; &
- Information management (invoice-level data with financial data).

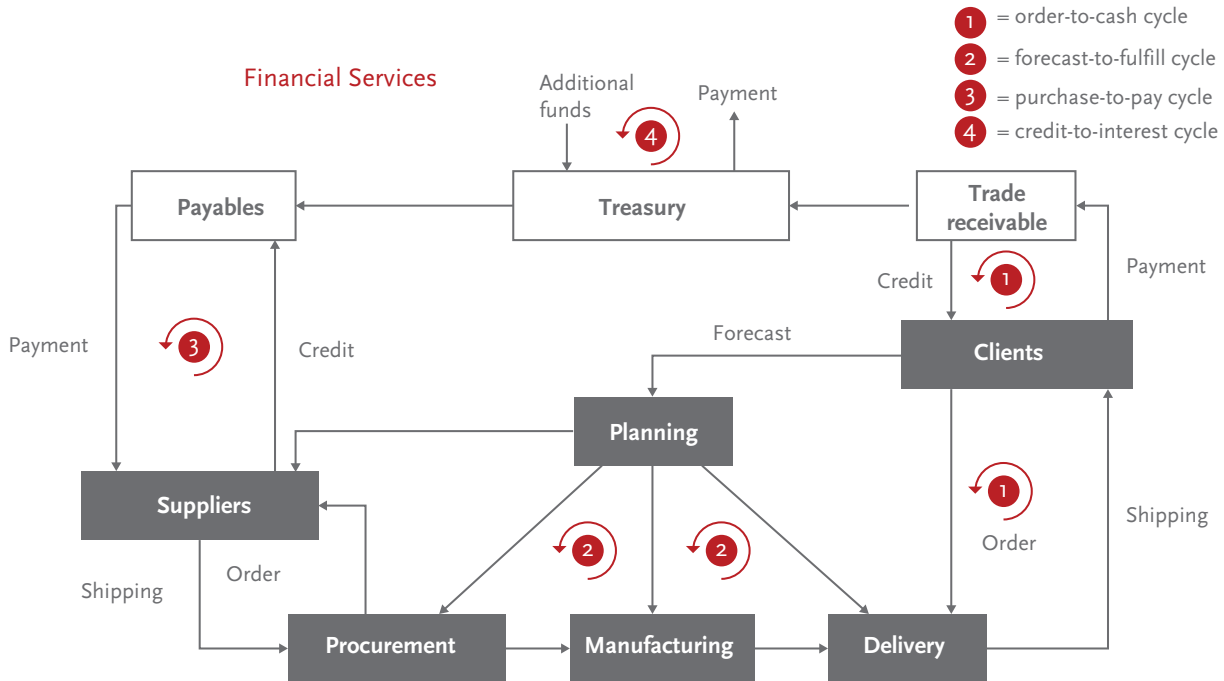
These ratios have the merit of recognizing deficiencies and operational risks that are more often purely financial. Nevertheless by themselves individually, they remain imperfect to access a comprehensive funding cycle of the supply chain and especially to understand the financial risks associated with externalities like market uncertainties and demand, suppliers, volatility of commodity prices etc. In order to be more effective, these ratios must be able to better control the following:

- The variability of cash flows (which is due to numerous errors of forecasts sales, out of stock situations, interruptions of suppliers, etc.) and their impact on the entire chain and its funding cycle;
- The strong correlation between the operating performance and financial capabilities of suppliers and distributors - a supplier facing delays in the payment of its receivables will be forced to postpone the purchase of raw materials or to stop its production;
- Liquidity needs in terms of profitability in the short and medium term supply chain operations: for example, restricted credit terms to customers can certainly improve the working capital but can also have a negative effect on sales, while delayed payment of suppliers can lead to increased cost of goods supplied etc.

That is the main reason why it has become necessary to change the indicators of physical and financial control of the supply chain, in order to:

- Better understand the relationship between operational performance and financial performance (as shown in the ensuing diagram); &
- Use a collaborative approach in managing the finance and treasury stakeholders / contributors to the supply chain.

The following chart shows an integrated cash-to-cash cycle for a single organisation.



Analysis by Mazars, 2011

2.5. Other “operational level” financial flow management challenges

It is the diversity of participants that adds to the complexity and length of processes relating to supply chain. As a result, uncertainties, costs and inefficiencies are created in both the product and financial chains, which inhibit value creation. The issue at hand is to reduce extra costs and redundancies, both for capital and for material and logistics, in a chain. If left unattended, these issues tend to often result in high working capital needs, high costs, high DSO and lower revenues. In order to address these challenges and take appropriate action, we have identified some common causes and summarised the same below:

- Unreliable and unpredictable cash flows: In many situations, financial flows do not contain a sufficient level of detailing for manual and automated systems to accomplish their tasks. As a result, additional time and effort is required to obtain missing information (e.g., invoice-level detailed information such as SKU numbers, item quantities, and purchase order numbers);
- Costly processes: Even some of the best ERPs do not facilitate the monitoring of expenses by individuals and this inevitably leads to enhanced cost, thus undermining the organisation’s initiatives to control expenses and improve strategic sourcing. Strategic sourcing

itself requires companies to know how much they are purchasing from various suppliers for different categories of products. The performance of periodic analyses to help monitor spending and negotiate strategic sourcing with key vendors may be time-consuming and costly if this data is not captured electronically;

- Suboptimal credit decisions: Organisations often maintain their own departments and set specific customer credit limits. However, the ability to set optimal credit limits may require sophisticated algorithms that are often inaccessible to non-financial companies;
- High DSO: Delays in reconciliation of invoices are a particular cause of additional working capital; as they delay receipt of payments and increase the DSO. When there is a three-way mismatch of the invoice, purchase order, and shipping receipt, there is an inevitable delay even while the mismatch is being investigated. Such investigations typically take time, as well as add costs;
- Slow processing: These issues are caused by manual processes that tend to be slow, unreliable, unpredictable and in the final analysis, may prove to be more costly than automated solutions; &
- Inadequate knowledge of best practices relating to SCF increases end-to-end supply chain costs. In addition, poor visibility of the physical supply chain events and difficulty in estimating the true cost of capital also pose challenges to SCF.



3

Management of financial flows in supply chain

The necessity to demonstrate a value differential vis a vis competition has prompted organisations to look for innovative solutions within SCM and this is a trend which picked up way back in 1980s. Current management techniques such as just in time (“JIT”), quality management (“QM”), management material planning (“MMPs”), which are largely used in manufacturing for improving productivity, seek to add value within the supply chain and are widely being applied in the operations of organisations. With globalisation breaching the market boundaries in terms of competitiveness, organisations have started seeking innovative mechanisms to enhance their level of competitiveness as well as increase customer satisfaction levels. This has created a new SCM model, which is based on a collaborative approach, to enhance process excellence.

Both economic factors and supply chain arrangements are vital for an organisation’s success. In addition, managers have experienced that by developing their partner relationships their organization could be more competitive in the market. However, this does not mean that improving a partner relationship is an easy task to manage, particularly since this brings into light challenges associated with stakeholder insecurities, dilemmas and varying levels of satisfaction. Organisations are finding that they can no longer compete effectively if their suppliers or other entities within supply chain are isolated.

Procurement process reengineering brings better results and savings for companies that seek to extend it to the entire procurement value chain rather than to their in-house procurement function. This essentially entails putting the whole procurement cycle under scrutiny; and moving from a large number of suppliers, towards developing a partnership approach with a selected group of trusted suppliers.

Better and closer supplier relationships can help companies reduce costs, cut wastages and discover hidden efficiencies in their procurement value chain. A collaborative approach enhances supplier loyalty and helps build long term win-win solutions. In addition, higher levels of trust and loyalty can be used to build integrated procurement platforms with collaborative information sharing for competitive advantage.

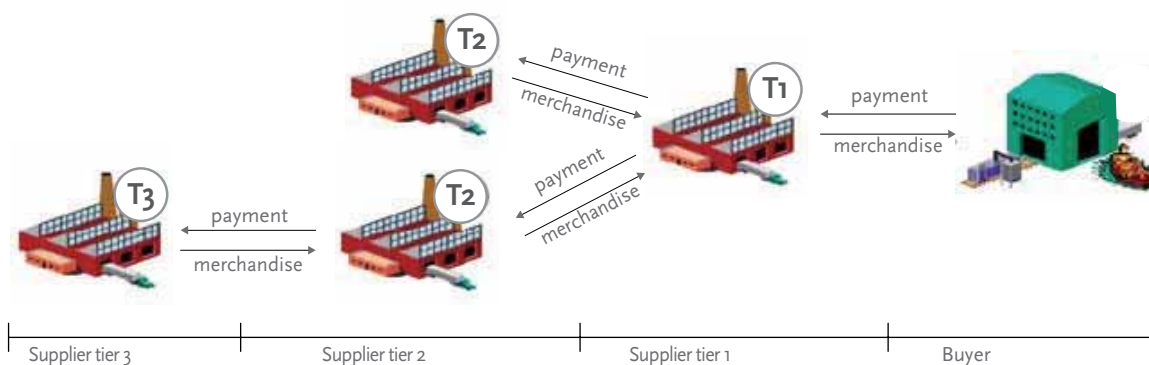
Collaboration has a synergistic effect on all partners along the value chain. The main objective is to integrate the core competencies of a business with those of key suppliers who may possess complementary competencies. This integration has the objective of creating a business model that results in a more competitive value chain. In other words, a collaborative approach essentially means forging a common path to integrate the SCM system with that of the supplier’s operations,

outbound logistics, marketing and sales, services and customer expectation management system.

Closer relationships with suppliers and partners lead to better responsiveness and agility in operations, as organisations benefit from supplier transparency and improved accountability. Reliability is a function of a collaborative approach as suppliers can count on better prospects for themselves when the business prospers. This level of commitment is difficult to achieve when suppliers see themselves as just one amongst many, leading to their looking at the relationship from a transaction to transaction perspective. In contrast, a collaborative approach encourages a strategic perspective of the relationship.

The collaborative approach between organisations and their network of suppliers in terms of sharing of forecasts, standardisation of trade (orders, billing), sharing of stocks and common logistical platforms, creation of information exchange hubs etc. is not a new concept and has been in practice for over 10 years. However, the implementation of the approach on the ground varies based on the degree of maturity and nature of collaboration from industry to industry. Surprisingly, concrete steps have not yet been taken towards building up a collaborative approach in the perspective of cash management and financing needs related to the operations of the supply chain. It has become even more relevant in the times when a relationship between large organisations and their financial partners have evolved both in terms of credit management and integration of information flow. This enhances the potential for value creation in supply chain by implementing a collaborative approach in working capital for the benefit of all the players. In this section we have discussed the two drivers of the collaborative approach for value creation – first, reducing the payment time or “zero payment period” and second, collaborative “management of working capital”.

The simulation model developed by Mazars deals with the control of the payment chain and has been developed to assess maturity and effectiveness of SCF. This has financial as well as operational benefits and simplified version of the simulation model is shown below.



Assumptions of the simulation model:

1. Each supplier goes into production upon receipt of all necessary raw materials
2. Each supplier has a limit of tolerable working capital needs, beyond which it cannot fund its production activities
3. Full payment of goods is received at a time and after delivery

3.1. The benefit of shorter or zero payment periods

Traditionally, financing the supply chain has been a tug of war between the buyer and the supplier in the context of the payment period and terms. Increased payment periods, on one hand, may land the supplier in a cash crunch situation to manage its supply chain. On the other hand, longer payment periods and renegotiation to maximise cash flow increases the operational risks for the buyer including the supply of material and, indirectly, the cost of mechanism implemented to control the risks. The conflict over payment terms and negotiation of payment periods creates a “lose-lose” situation where the buyer may feel that they have attained financing for an additional period whereas, in reality, the seller may adjust prices to compensate for the cost of financing its supply chain. This traditional supply chain is sub-optimal from a financing perspective, with both sides ending up paying an unnecessary price. With SCF, the “lose-lose” battle can change into a “win-win” situation where both parties benefit from an optimisation of the processes of financing the supply chain. In this situation the end result could well be that, both the supplier and the buyer are able to free up capital.

Continuing tight credit conditions have made liquidity scarce and as a result organizations expect to extend payment terms for their supply chain. At the same time suppliers find it difficult to accommodate this limitation. Our research shows that 88% of organizations in the UK and 55% in Germany have identified that their key suppliers are unable to sustain a further lengthening of their payment period. Longer payment periods and renegotiated lower prices to maximise cash flow increase operational risks. Although the London Metal Exchange (“LME”) and the commitments made by large organisations in the SME (Small and Medium Enterprises) Pact* are welcome moves, there is still progress to be made in relation to payment terms which remain excessively high on an average and the need of the hour is to take active steps to reduce late payments. One of the studies on this subject carried out in 2008 showed that late payments were responsible for over 25% of cases of insolvency and generated a shortfall estimated at 525 billion Euro in Europe[^]. There are three key performance criteria that distinguish efficient organizations from the rest, in this context:

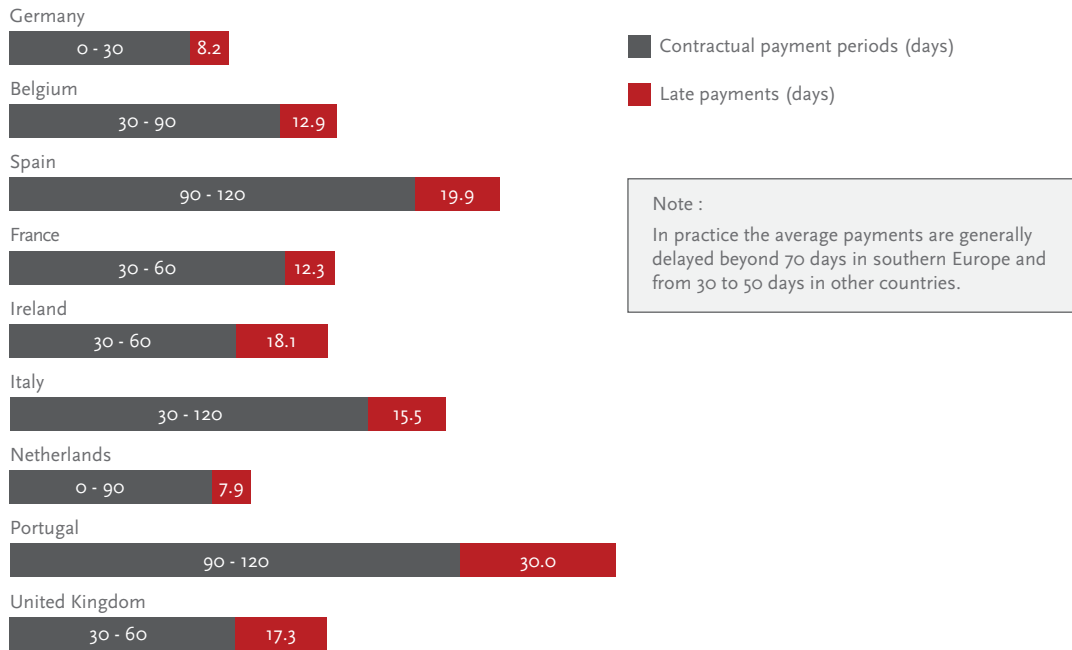
- 7 days to process an invoice for payment;
- 60 days payable outstanding; &
- 6.5% decrease in average purchasing cost year over year

As shown the in the graphs on the ensuing page, late payment periods vary from country to country in Europe.

* The International Small and Medium Enterprise (“SME”) Pact Association was launched in June 2010 to promote collaboration between Original Equipment Manufacturer (“OEMs”) and SMEs and facilitate the development of medium sized enterprises.

[^] Source: Cash Manager, a highly profitable business – Les Echos, November 3 & 4, 2008

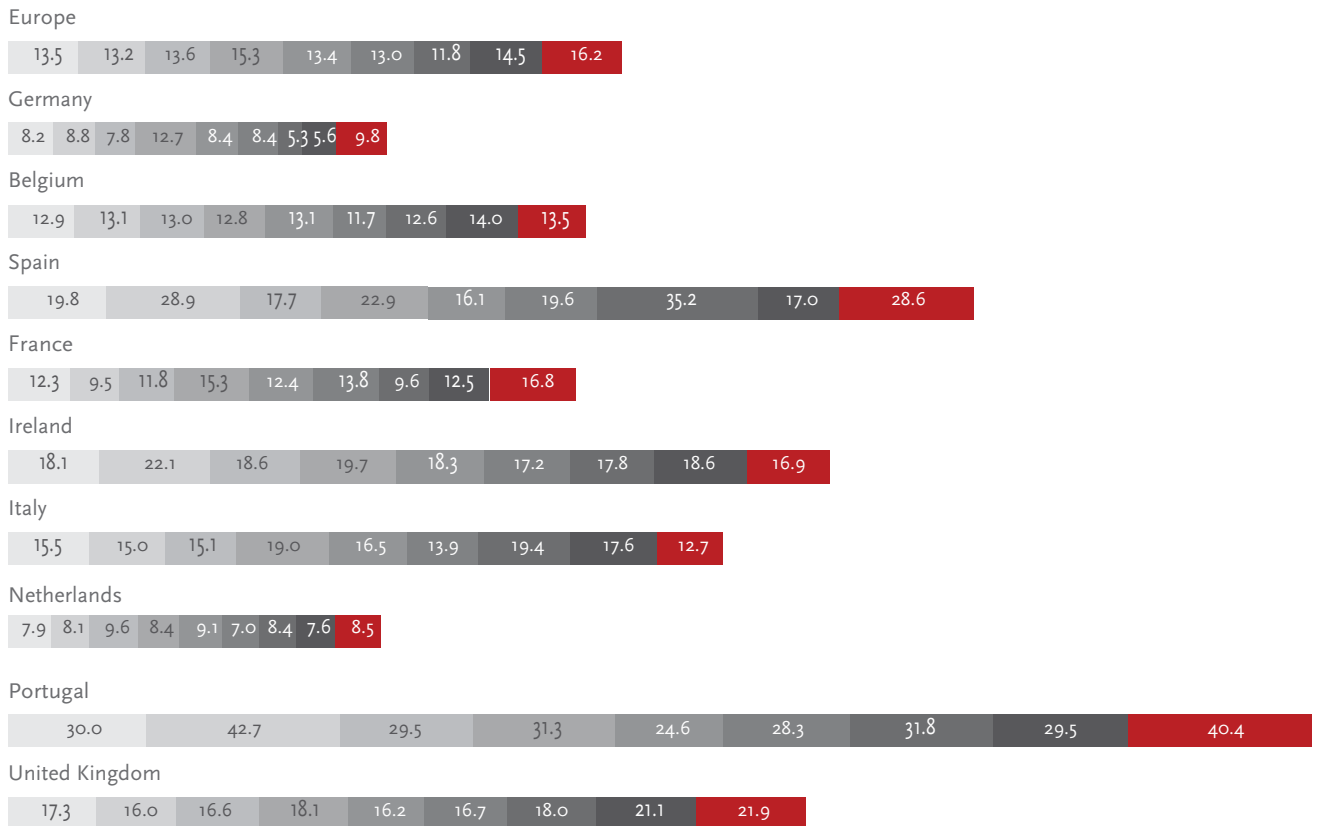
Comparison of average delays of payment in Europe in the first quarter of 2011



Source : Analysis of 1st Quarter 2011 : payment behavior of companies in Europe. Altares

Number of days of late payment from organisations in Europe (by country and transaction type in the first of 2011)

All activities
 Building
 Industry
 Transport
 Business to business
 Services
 Administration
 Detail
 Real estate



Source: Analysis 1st Quarter 2011: payment behavior of companies in Europe, Altares.

The risks of supply disruptions from the smallest of suppliers due to longer payment periods and cycle of working capital may result in a negative impact on the entire supply chain. However, the concept of “zero payment period” ensures that there is a smooth supply chain process and which does not unduly strain either the buyer or the supplier. This is possible due to implementation of processes such as reverse factoring which reduces the cost of financing for all stakeholders and largely diminishes the risk of disruption of supplies.

3.2. Managing working capital

Despite the global economic meltdown, organisations across the world have continued to innovate in SCFM and have enhanced efficiency in trading and in the process created value for the trading partners. Banks recognise that the credit crunch in a global platform may be a short-term challenge but may also become a medium term business opportunity. Although the majority of cross-border trade is conducted directly between two organisations, there are strong indications that a significant portion of such transactions may migrate to a bank-assisted model over the coming years. This has received support from regulators in some countries and banks have come forward to provide streamlined services through bank-intermediated supply chain solutions. Our research shows that, close to 294 billion Euros is currently trapped in the working capital cycle of organisations across the globe.

While, there has been attempts to align the centralised management of cash with the management of commodity transactions within the complex network of trading partners, however, from a working capital perspective, cash and trade clearly impact on the cash conversion cycle. It is estimated that organisations which optimise their cash conversion cycle can reduce their WCR to 60% of the current requirement.

However, the reduction of payment delays could have little impact if they are applied unilaterally to a single customer-supplier link in the supply chain i.e. if it is not passed on to all the players. Similarly, the effects of reducing or sharing supplies are limited if the gains in flexibility do not spread over the entire chain, both operationally and in terms of sharing of the value created.

SCF clearly demonstrate the benefits of a comprehensive and collaborative utilisation of working capital with regard to payment terms. Our research shows that not only does the extension of payment periods increase the risk of operational failure, but also the consolidated costs of financing working capital, with lower credit provided to SMEs. The tightening of credit conditions, due to new capital adequacy ratios of banks, also accentuates this phenomenon.

The role and responsibility of contractors in the implementation of these new collaborative approaches is essential. Collaborative approaches are critical in creating a virtuous cycle of reduced payment delays and equitable sharing of

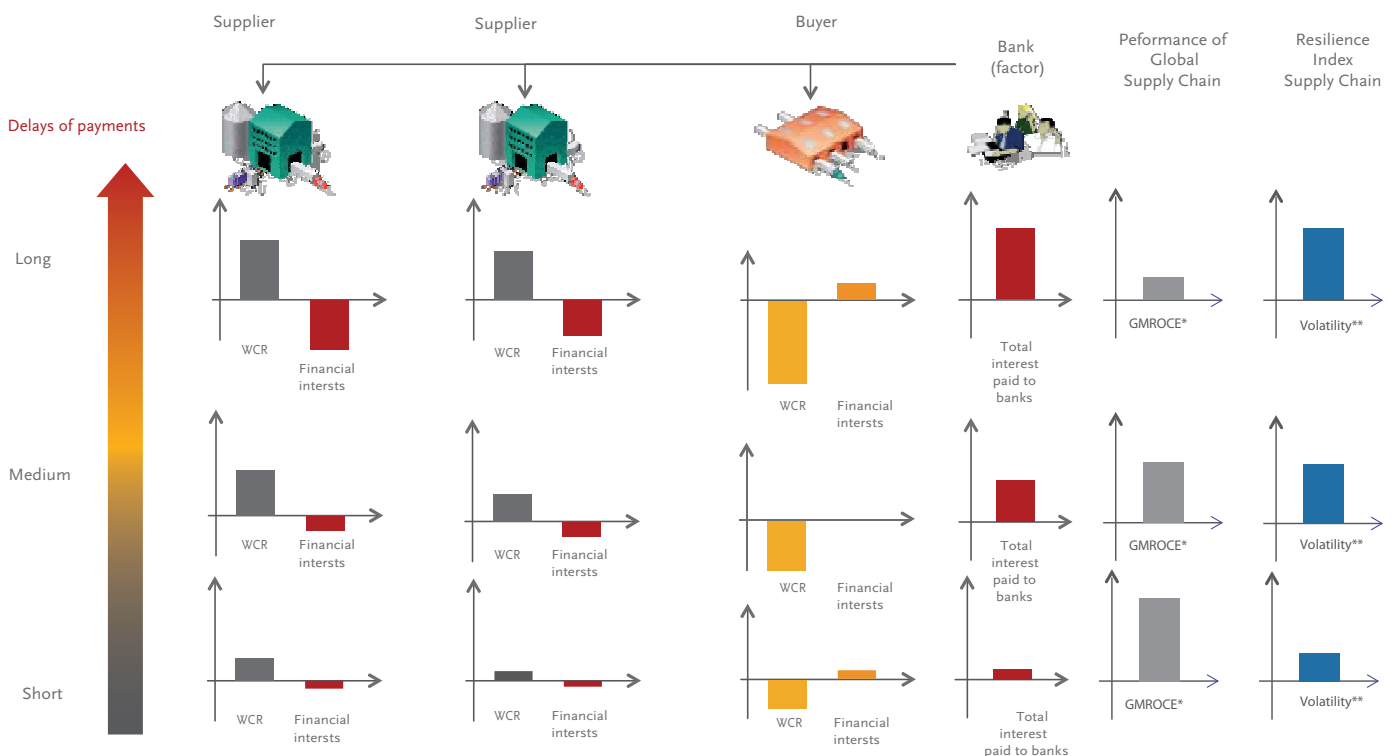
the risks of stocks, while facilitating WCR of their networks of suppliers and distributors.

In addition to these, there is an increased need to integrate financial flows with physical flows. Suppliers and buyers should work closely to share the risks and pool their financial resources to attain better short term liquidity. To highlight the importance of a collaborative approach, we have discussed some innovative financing solutions in the next chapter, which seek to create value for different stakeholders in the face of complex and global supply chains.

The “zero time for payment” creates value particularly in three areas:

- Overall reduction of the interest charges which in turn reduce the final price of the product;
- Overall reduction in working capital; &
- Reduction of the risk of failure and associated penalties for late payment or delay in income.

The simulation demonstrated below shows the impact of payment periods between internal and external customer on the overall working capital.



Developed by Mazars, 2011

* Gross Margin Return On Capital Employed (“GMROCE”) (Average Working Capital): reducing the time for payment impacts both on the nominator (reduction of interest expense and smoothing of production) and denominator (decrease in working capital).

**The index of resilience is measured by considering delivery time based on errors in forecasting: suppliers delay their output owing to tight cash situation which creates a ripple effect at the buyers end.

4

The future of the supply chain: an integrated approach

There is a paradigm shift in the scope of SCM, specially after the recent global financial meltdown and its impact on business flows. The current level of transformation seeks to address intricate aspects that range from foreign exchange and volatility in raw material pricing to credit unavailability, investment insecurity and industry consolidation within the financial markets.

Although these specific issues are serious in nature, treasurers and finance directors are also expressing greater concern over some other fundamental issues. Substantial reduction in orders is one such issue which can affect the viability and success of the core business. Even though some industries have experienced a slight and a seemingly temporary increase in orders in the recent few months, their management tends to question the sustainability of these upticks.

In order to address such concerns, most financial institutions are prepping themselves to provide innovative financing solutions to the physical supply chain and are seeking new ways to inject the much needed liquidity in the market. For instance, on the procurement side, some banks are assisting in spreading information on credit and performance risks, while also advising procurement centers on how to analyze and rate suppliers.

The management of financial flows in supply chains in the future would present both opportunities and challenges. According to experts the future supply chain is also expected to fully integrate financial and operational dimensions, while addressing the following three major issues:

- Integrating control of financial flows (cash) with that of physical flows, which requires the harmonisation of practices, processes, tools and a cohesive culture of finance and operations;
- Optimising the chain of payment (means and time) to improve the liquidity of the supply chain; &
- Implementing financial solutions that provide the flexibility necessary for all stakeholders at a lower cost.

4.1. Integration of financial flows and physical flows

Integration of financial and physical flows is achieved through a better coordination of information received from various stakeholders of the supply chain. This requires a synchronisation between the processes of operational dimensions that include KPIs like inventory turnover, delivery times, rates, service levels etc., and the processes of financial dimension which include KPIs like WCR, cash ratios, return on assets etc.

In many cases, the stakes are not only technical in nature i.e. in terms of process and information technology. Consequently, the most difficult step is to synchronise the behaviors, practices, frameworks with organisation goals. The operational sphere of the supply chain can be assessed by activating several objectives:

- Changing the design of monitoring indicators and consolidating financial and operational performance to achieve an optimum benefit. In this context, the “liquidity ratio” seems particularly important not only to measure the differences between the physical flows of cash and its frequency, but also as a measure of resilience, i.e. the ability to maintain operating conditions and profitability after taking into account the risks that address external factors like market demand, supplier etc.
- Sales & Operations Planning should systematically integrate finance as well and simulate the impact on revenues, costs, margins and cash flow choices made in planning of the supply chain. It also seeks to link the consolidated budget planning to various steps of decision-making. According to a prominent study, the reliability of cash flows in 2008 was the last priority for 51% of American contractors*. This is an interesting noting that demonstrates the importance of implementing sales & operations planning in comparison to benefits that the companies withdrew.
- There should be an effective flow of information (forecasts, inventory, orders, etc.) with respect to the physical, financial and administrative aspects of the supply chain between the management and other key stakeholders. Future supply chain would connect the embedded platforms of all stakeholders - customers, suppliers, logistics, banks, insurance etc. It is interesting to note that in 2008, 46% of suppliers felt that one of the greatest obstacles for optimizing their cash flow was the lack of collaborative technology, that provided a visibility of an end-to-end of the chain^.

* Source: Aberdeen, Working Capital Optimization Benchmark Report, 2008.

^ Source : Aberdeen, The 2008 State of the Market in Supply Chain finance Benchmark Report, 2008.

The following chart presents the results of a survey of over 300 companies for aligning business goals with supply chain in four significant industry segments: process industry, consumer products, manufacturing, high tech / electronics.



Note: Best-in-Class = 20% best performing companies, Industry Average = 50% of businesses in rural distribution Latecomers = 30% of companies perform less.

Source : Aberdeen, the 2008 state of the market in supply chain finance benchmark report, 2008.

4.2. Innovative solutions for management of SCF

In addition to achieving an integrated SCF, innovative financing solutions create value for all stakeholders through better short-term liquidity, pooling of financing needs, reducing costs of asset management, improving the creditworthiness of stakeholders (especially SMEs) and as mentioned before, a lower exposure to financial and operational risks.

This creates opportunities for new services and financial institutions, including banks. They have recognised the importance of integrating the supply chain of financials with logistics. The evolution of logistics providers in the last decade shows a gradual shift from mere transportation and storage to other higher value added services like tracking, sharing, fulfillment and creating information exchange hubs.

Similarly, the financial supply chain is also changing with the gradual deployment of collaborative platforms, paperless exchange of information (invoices, orders

and regulations) and integration of financial flows, combined with value-added services offered by financial institutions (banks) for a network of customers and suppliers.

SCF assesses the financing needs based on the occurrence of one or several supply chain events. The overall goal of SCF is to optimize the working capital through the end-to-end supply chain, both at the 'buyers and sellers' end.

Armed with these capabilities, banks can offer SCF solutions that enable their customers to lower costs and create financial stability in their end-to-end supply chain and create deeper and broader customer relationships in the process.

Key elements of SCF include factoring, invoice discounting, purchase order / invoice data management; bank assisted open account, open account payment, export / seller finance and buyer side finance. These elements have been discussed below:

Factoring

Factoring is a financing option in which firms raise cash by selling their accounts receivable at a discount from their face value. Most factoring transactions made today are structured to be more like short-term loans with receivables pledged as collaterals. Under this scenario, the organisation pledging the receivables in return for funding retains the risk associated with uncollectible receivables.

Factoring allows the organisation to obtain finance, based on the value of their outstanding invoices, which is particularly advantageous to businesses that are growing quickly, as it is often a more flexible source of working capital than bank overdrafts or loans.

Invoice discounting

Invoice discounting is an alternative way of drawing money against invoices. In this situation, the business retains control over the administration of their sales ledger, while using a cost-effective way to improve their cash flow. The invoice discounter will first check the business, its systems and its customers. They may then agree to advance a certain percentage of the total outstanding sales ledger. The organisation pays a fee to the invoice discounter, which is usually a percentage of the value of invoices assigned or an agreed fixed fee, in addition to discount (interest) on the net amount advanced.

Purchase order / invoice data management

Global trade transactions revolve around purchase orders, invoices and other non bank documents. Letters of credit, documentary collections and bank-assisted open account instruments provide added benefits. The incorporation of

a purchase order and invoice data in a traditional trade finance and the creation of new open account solution allows banks to provide strong offerings that are aligned with the corporations' view of its SCF philosophy.

Bank-assisted open accounts: approval-to-pay

Approval-to-pay is a new bank-assisted open account product that eliminates bank exposure fees that a customer would typically pay with letters of credit, while providing many benefits similar to that of letters of credit. Approval-to-pay is based on purchase orders and issued like letters of credit, with the buyer's conditional payment terms clearly specified, sans a bank guarantee.

Open account payment

An open account payment provides the ability to make straight trade payments for due invoices.

Export / seller finance

The typical order-to-pay trade cycle places the financial burden on sellers. They prepare and ship their orders, followed by a rather long waiting period for payment. This results in a growing need for export financing. However, the role of export finance varies widely. The mix that a bank might provide depends on the risk appetite of the bank, the role the bank is playing in the transaction and the type of programs that it may support.

SCF creates a unique situation where everyone – buyer, seller and financial institution, benefit. While buyers enjoy lower prices for goods purchased, improved visibility of their cash flow and an increasingly reliable supply base, sellers can leverage the buyer's credit to reduce the cost of capital, obtain lower cost financing and create more predictable cash flows. In the meanwhile, trade banks stand to dramatically increase the amount of business they conduct with their customers. By extending their reach to cover their customers' end-to-end supply chain, they can improve their bottom line and strengthen ties with customers.

4.3. Focus on reverse factoring

Principle of reverse factoring

Traditional factoring is the selling of outstanding invoices by a supplier to a bank or a factoring company in order to receive early payment. Factoring is not a loan and although it provides working capital, there are no additional liabilities on the company's balance sheet.

With reverse factoring, an early payment is provided by a bank or factoring company to a supplier, based on invoices qualified by the buyer.

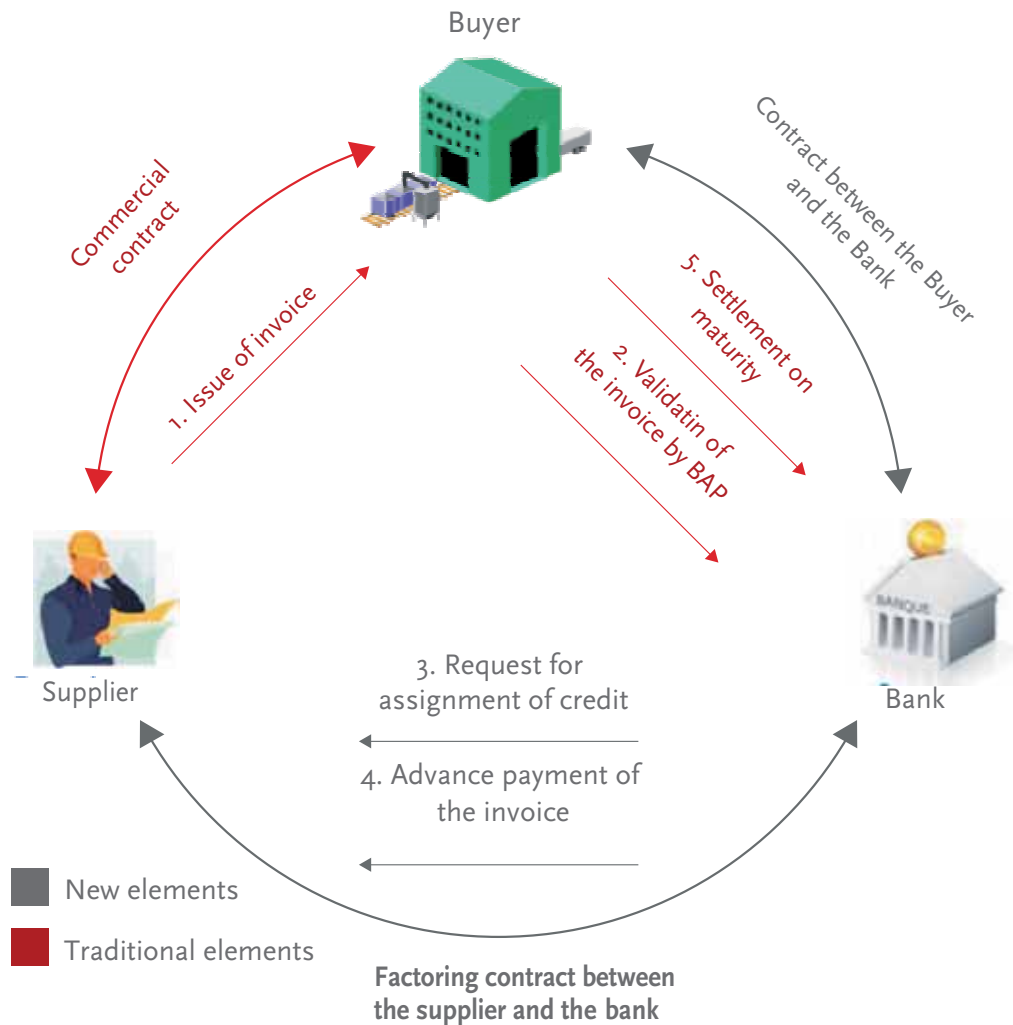
Buyers and suppliers have contradictory objectives. Buyers seek to optimise their cash flow by 'stretching the trade' and maximizing DPO (late payment), while suppliers seek to minimise their DSO (early collection). Factoring addresses this conflict using the invoices, which in essence is an illiquid asset for a seller until the payment is received, as the basis to generate working capital.

The difference between traditional factoring and reverse factoring

The rates offered to suppliers in reverse factoring are more attractive for the bank as it is less risky as compared to traditional factoring (risk of the buyer vs. risk on the portfolio of the supplier client).

While factoring uses an invoice as the underlying asset for financing, reverse factoring brings the qualified invoice into play. In essence, traditional factoring deals with the supplier's receivables from many 'unknown' buyers; while reverse factoring deals with the payables of one well-known buyer. Besides, traditional factoring can be done by one supplier individually; while reverse factoring also involves the buyer (performing the invoice qualification). Unlike reverse factoring, with traditional factoring, the factor company does not know whether the supplier actually delivered the said goods or services or whether the delivered goods or invoice will be contested by the buyer. As a result, traditional financing on an average provide financing of around 70% of the invoice value, while reverse factoring can provides up to 100% of the invoice value (minus the interest & service fee). At the same time, traditional factoring is not a suitable financing instrument in environments with weak contract enforcement institutions, incomplete credit information or frequent fraud - in such circumstances, reverse factoring could be a good solution.

The ensuing chart depicts the relationship and the financial arrangement between the three stakeholders in reverse factoring.



Developed by Mazars, 2011

The process of reverse factoring:

As a process, reverse factoring is slightly more complicated than factoring. The process involves seven key steps as below:

- First, the buyer sends a purchase order to the supplier and notifies the bank.
- Second, the supplier delivers and presents documents to bank.
- Third, the bank checks the documents and notifies the buyer.
- Fourth, the buyer approves or rejects.
- Fifth, the bank notifies the supplier of the buyer's acceptance.

- Sixth, if the supplier requests early payment, the bank credits the supplier's account.
- Finally, when the invoice is due, the bank debits the buyer's account

The benefits of SCF to different stakeholders can be summarised as following:

Benefits to buyers

- Mitigation of risk of failure of its suppliers and vendors;
- Securing the supply chain and supplies without adversely impacting the working capital, while generating a net gain via a commission earned;
- Provision of a basis to negotiate improved commercial terms with suppliers (i.e. lengthening payment terms);
- Reduction of payment processing costs;
- Improvement in vendor relationships by providing access to new and cheaper sources of funding; &
- Anticipation of constraints on the bank (measurements of Basel III).

Benefits to supplier

- Provision of competitive financing solutions;
- Provision of alternate source of liquidity (example :- off-balance sheet financing such as securitisation);
- Provision of accelerated payment options; &
- Provision of visibility and facilitation of reconciliation of payments with invoices (faster dispute management);
- More predictable cash flows;
- Provision of a potentially better financing cost (depending on credit quality and industry);
- Creation of the ability to deconsolidate their balance sheet; &
- Simplification of the current business with the buyer.

Banking platform benefits

- Enhancement of profitability due to the lower capital requirement (especially in light of Basel III);
- Increased top line by supporting clients' entire supply chain from end-to-end;

- Stronger, more collaborative relationships with clients;
- Increased reach and profile of trade and treasury organisation; &
- Provision of efficiency gains among clients to create growth potential, leading to an expanded need for banking services.

Key success factors

The success of such a program depends largely on the rapid validation of invoices and in the interest of suppliers, to join the program. Reverse factoring balances the gains and issues between the three parties and supports the financial flow between buyers and suppliers.

The most important factor emerges from cash pooling, which is an innovative solution, with the globalised system of reverse factoring in the entire supply chain through fully internalised platforms. The involvement of principals in the organisation of these platforms goes a long way in ensuring uniform finance conditions for all stakeholders.

The overall benefits:

- Optimised working capital;
- Improved traceability of transactions (orders, invoices, making payments, cash etc.) to the buyer and its suppliers;
- Reduced litigation and cost management;
- Benefit of the discount offered by suppliers for cash payment through a third party;
- Retention of major suppliers; &
- Increased capacity to purchase the acquiring company.



The recent global economic downturn has demonstrated that supply chains are now exposed to systemic risks, both from a standpoint of financial flow as well as physical flow and it becomes impossible to ignore these external forces. To face these new challenges, it seems necessary to rethink the concepts, approaches and methods for managing the supply chain, particularly to include two dimensions – first, the integration of the financial flows into the physical supply chain and second, to control risks.

No solution to combat the challenges of SCM along with management of related finance can be claimed as impeccable. These challenges may increase manifold if strategic steps are not taken at an appropriate time. To meet future challenges of the supply chain, banks and more generally financial institutions play a key role in SCF. Like the evolution of logistics providers in the last ten years transformed the physical flows of the supply chain, the banks are ideally placed to become the integrators of financial flows for the supply chain. This integration should not only be limited to dematerialisation and automation of financial and information flows within and outside the organisation.

We recommend a set of new financial services, which are innovative and which the banks can convert into opportunities for development. We have listed a few, such as reverse factoring, which are no mere coincidences. But it is the initial pedestal which, in our opinion, can be much more ambitious, to achieve at least in the following three areas:

- The cash flows in tandem with material flows i.e. the integration of logistics, information, financial and administrative flows, for example, the “zero” payment terms;
- The “collaborative” WCR i.e. whether to pool and maximise cash flow as required by the supply chain partners, or to innovate solutions for collaborative funding, or to facilitate the liquidity of the stock solutions by valuation of assets and collateral; &
- Measuring and monitoring of risks, including the operational aspects, financial markets and sharing them with all stakeholders in a supply chain such as network of suppliers, customers, distributors, financial institutions, insurers etc

The integration of SCF with the physical inventory flow would be the strength of the future SCM. Rigorous market analysis and segmentation will trigger an internal re-evaluation of the products, services and processes that banks offer and are planning to develop. Understanding differentiated target client profiles will play a critical role in making product and service offers more relevant and more appealing. Progress in developing interorganisational systems that promote more efficient financial flows to provide better financial transparency leading to better risk assessment and successful risk management can provide important benefits. We now have the impetus and the opportunity to make radical changes in SCM through improvised SCF that would benefit business and economy for generations to come.

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