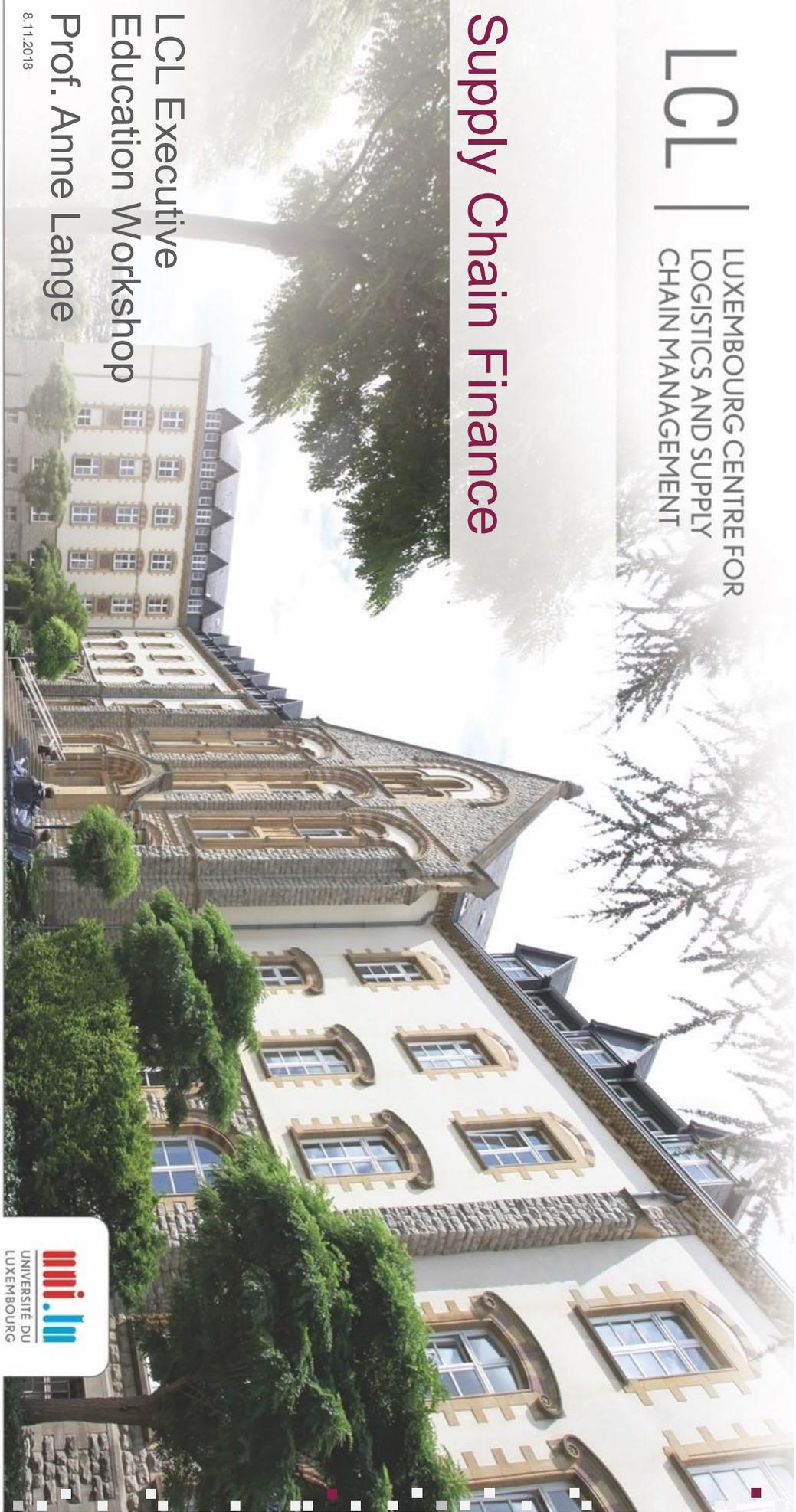


Supply Chain Finance

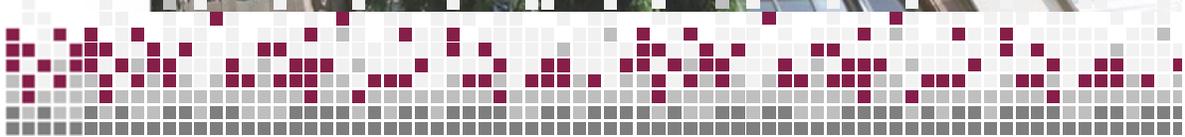


LCL Executive
Education Workshop
Prof. Anne Lange

8.11.2018

□ FACULTY OF LAW, ECONOMICS AND FINANCE

Luxembourg Centre for Logistics and Supply Chain Management ■ Supply Chain Financial Analysis Workshop



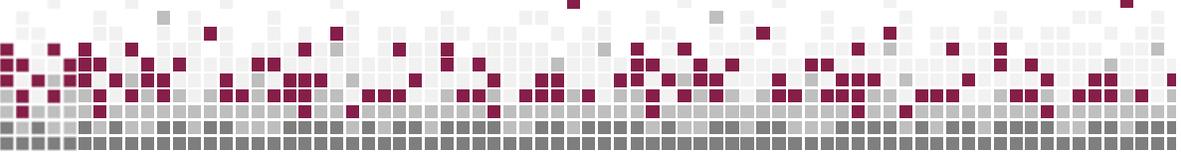
After this session you should ...

- ... be familiar with the idea of Supply Chain Finance.
- ... have in mind the principles calling for the need for financing the exchange between customer and supplier.
- ... be able to explain how supply chain finance works.
- ... be familiar with different options that exist for practitioners in order to provide liquidity in the supply chain.
- ... be aware of potential benefits supply chain financing and where they come from.
- ... not become supply chain financing experts.



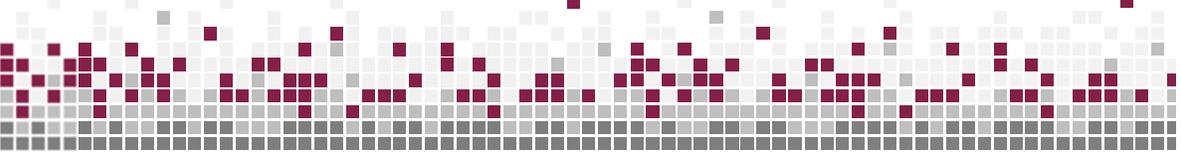
Agenda

1. Introduction
2. What is the challenge for supply chains
3. Options to finance receivables
4. Beyond that ...



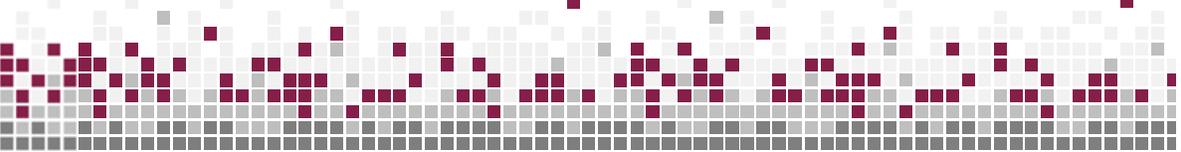
SCF past and now

- Supply chain finance has been used as a broad term in the past
 - Describing how we look at the supply chain through a financial lens
 - Identifying the financial impact from supply chain transactions
 - Understanding how supply chain decisions impact the financial statements
- But SCF now has specific meaning, since around 2008
 - A method to provide liquidity to buyers and sellers
 - Not new though....
 - Payment terms: Net 30 or 2% 10, Net 30



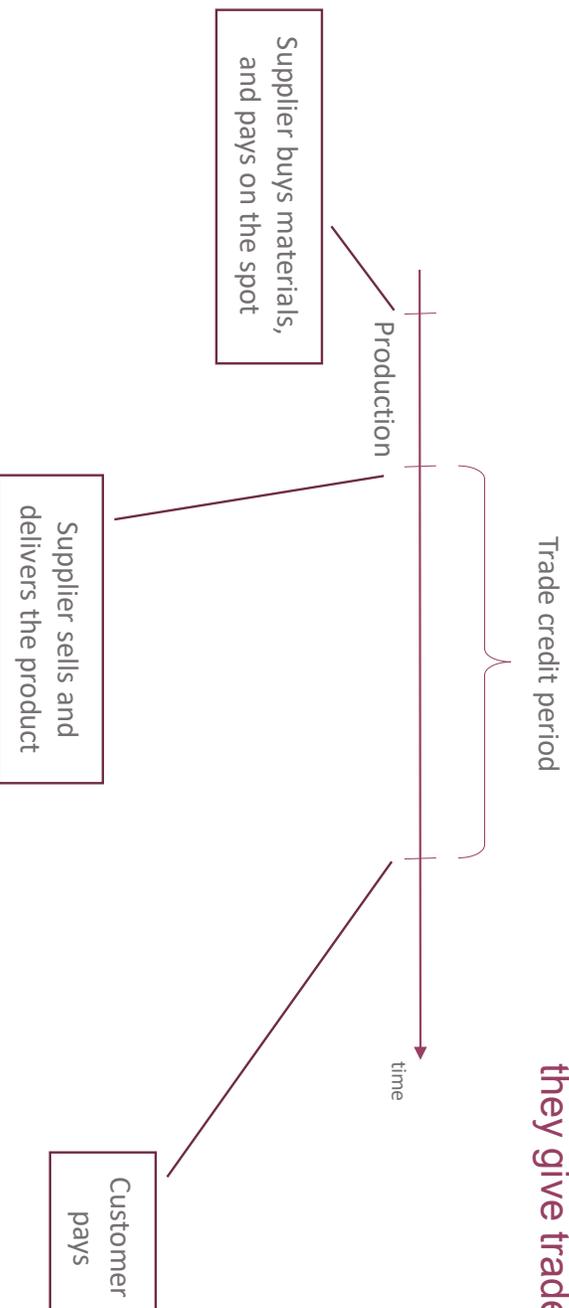
Liquidity in Supply Chains

- What is liquidity?
 - “Cash, cash equivalents and other assets (liquid assets) that can be easily converted into cash (liquidated)” (lexicon.ft.com)
 - Required because liquidity allows the business to operate, to pay bills, to buy materials, etc.
- Why is this now an issue?
 - The global financial crisis of 2008 exacerbated an already difficult problem – getting cash to fund business operations.
 - Buyers are increasingly looking for ways to reduce their net operating working capital requirements – that is, the funds necessary to continue operation of the business.
 - Many buyers extend the payment cycle from 30 days to 150+ days.
 - Therefore, many suppliers have to wait very long to get paid, and need cash to pay bills while waiting for the invoice payment.



Trade credit as an example

- Trade credit: A supplier delivers goods but the customer needs to pay for the goods only after a defined period of time, e.g. 30 days, 90 days, ...
 - The supplier extends a credit to the customer.



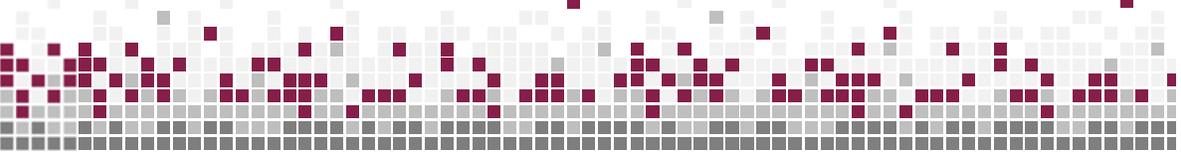
Obviously, companies are selective on which customers they give trade credit.

What is SCF, then ?

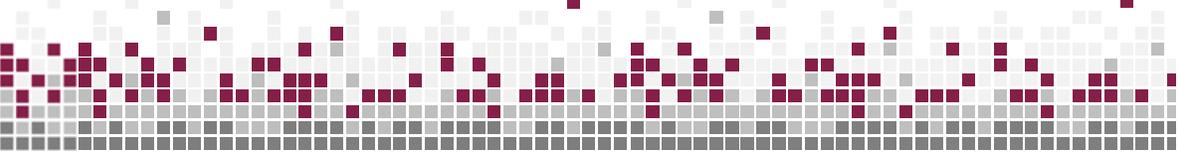
- Supply Chain Finance is a set of solutions that allow a company obtain the cash necessary to run the business, leveraging its role within the supply chain and its relationships with other players in the chain.
 - There are many variations among the different solutions
 - Different terminology used by various professionals
 - Simply put – its a way to align the cash needed to run a supply chain between the SC partners and a funding source for companies
- SCF provides financing
 - Supply chains ‘finance’ or fund their receivables (and sometimes inventory).
 - Typically by making use of the financial stability of the supply chain and not the individual company.
 - Third parties often involved: Banks, other financial institutions.

Risk issues

- Companies suffer higher risk if they are not able to access capital, this affects their ability to operate
 - Financial instability may or may not be related to operational capabilities – and supply chain partners can typically tell the difference quite well.
- Those companies with higher risk increase the vulnerability of all the supply chains in which they contribute
- Smaller companies can be assisted by larger companies in their supply chain
 - Larger companies likely have better credit terms which could be extended to the smaller firm, with support, collateral or guarantees by the larger firm

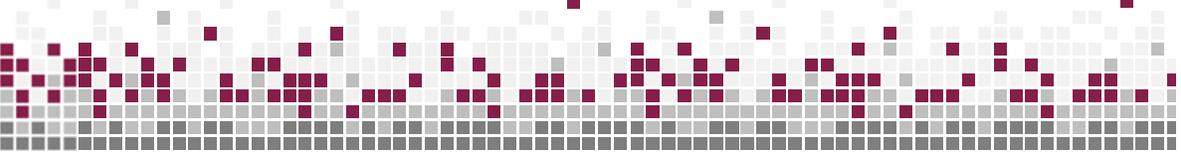


What's the challenge?



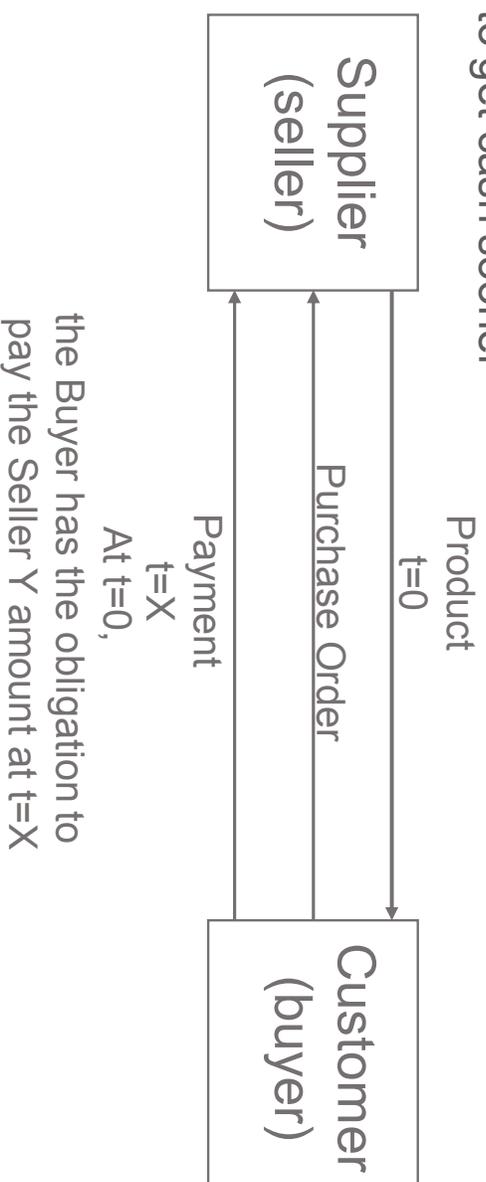
Two General Options for Financing

- Financing – two types
 - Debt
 - Equity
- When applying these options to Supply Chain Finance (SCF)...
 - Most are using debt – or loans – to provide liquidity – cash – to the firm
 - Some entail selling the asset (e.g. a receivable from the buyer), usually at a deep discount
- There are many variations
 - Each with advantages and disadvantages



Supply Chain Finance: How does it work?

- Case: Raw material purchase
- Situation: Buyer agrees to pay seller in X days
- Seller can:
 - Wait X days for payment
 - Consider other options to get cash sooner



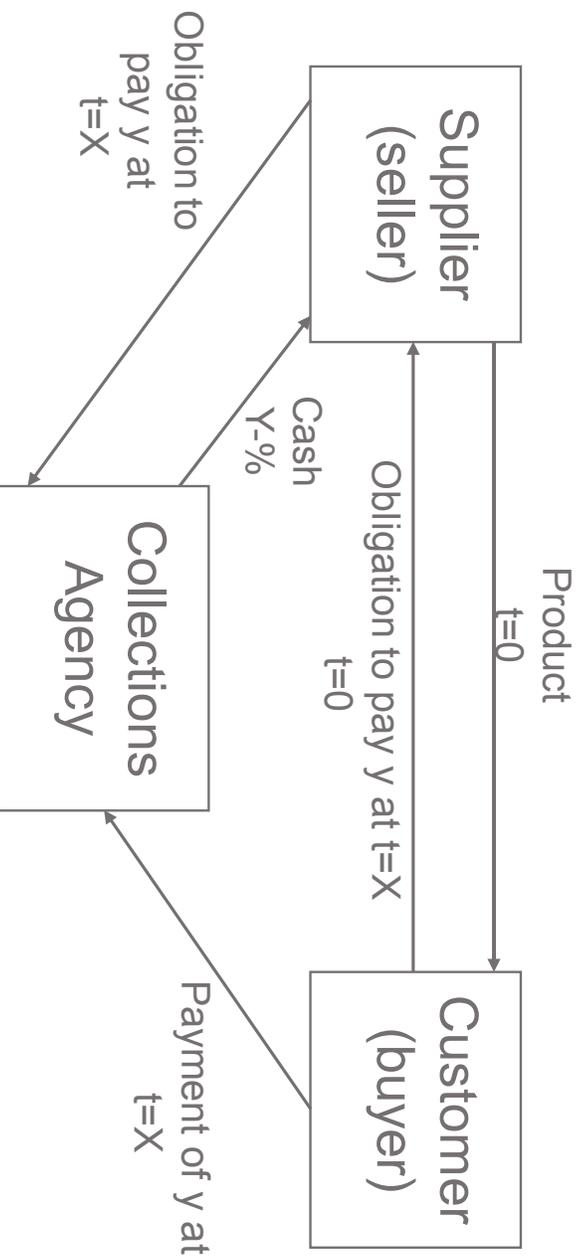
- **t =time, X =payment date, Y =amount**

Up to you

- Consider this case:
 - A seller and a buyer are discussing a contract for a specific product. The sales price is 100 fancy pennies. The product will be delivered today and is payable 30 days from now.
- Buyer and seller meet to discuss an alternative arrangement for payment
 - Include 3rd party if desired
- Objective: meet your specific objectives, consider different options
- Report back:
 - Nature of the agreement
 - How and when are the invoices paid?
 - Rewards

Basic factoring

- If the seller does not want to wait....
- One seller option called factoring:
 - Sell the receivable to a third party (e.g. collections agency), called the Factor
 - The receivable is an obligation of the buyer to pay the seller

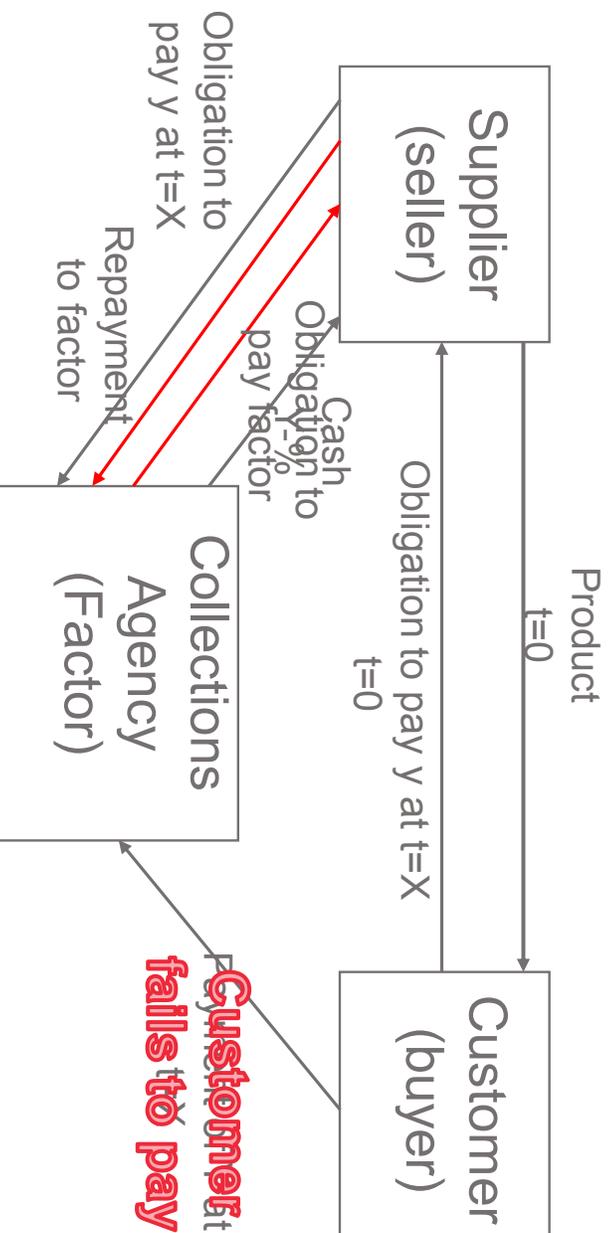


Recourse – important for the factoring agreement

- The Factoring agreement entails two options:
 - Factoring With Recourse: The Factor can go back to seller to collect if the buyer fails to pay
 - Factoring Without Recourse: The Factor has no option to go back to the seller to collect, can only collect from the buyer.

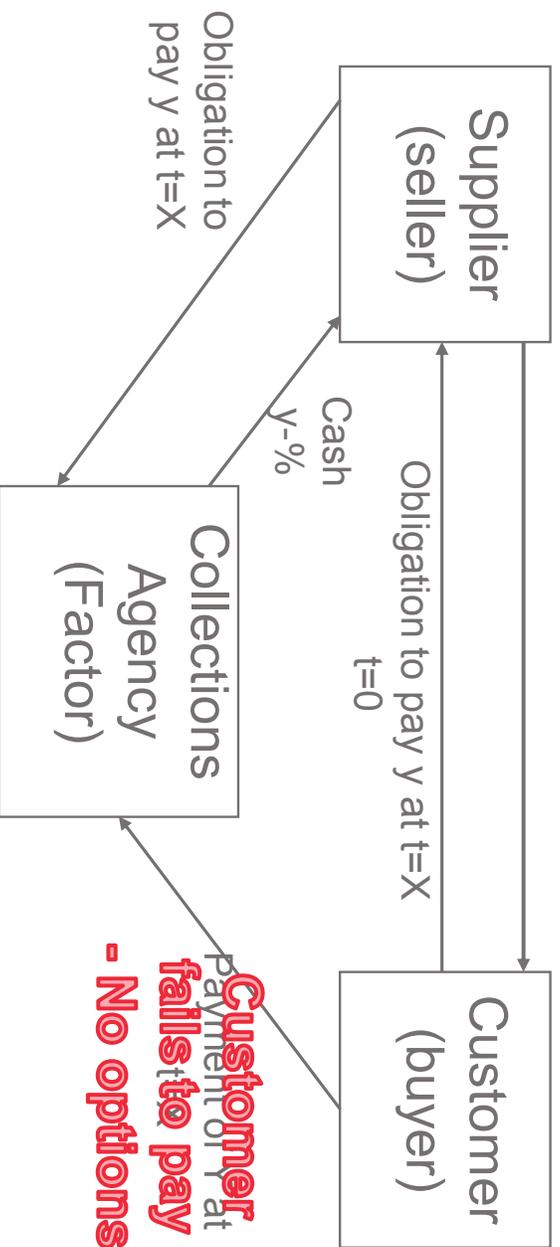
Factoring with recourse

- If the Buyer fails to pay the Factor, then the Factor can collect from the seller.
- The % off invoice will be lower because the seller still bears the risk if the customer does not pay.

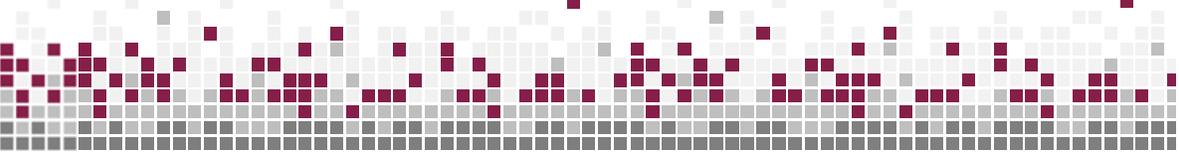


Factoring without recourse

- If the Buyer fails to pay the Factor, then the Factor is stuck.
- No option to go back to the seller to collect.
- The % off invoice will be higher because the Factor bears the risk if the customer does not pay.

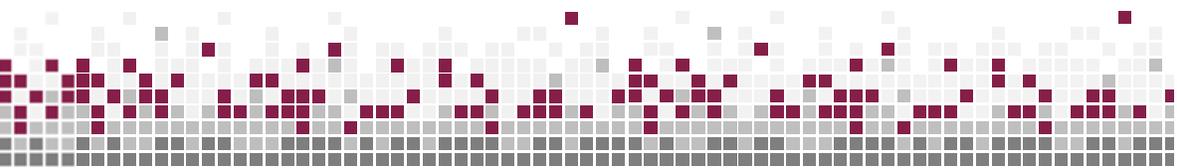


Options to finance receivables



Many options to finance receivables

- Factoring is a common approach
 - But it can come at a high cost (% of the invoice)
- Other options vary based on several factors
 - Loan or sale of the receivable
 - Timing of the payments
 - Which party bears the risks of repayment
 - Use of different types of collateral
 - Who initiates the arrangement
- Each option has slightly different impact on net operating working capital
- Be clear about the specific exchange – ‘factoring’ means different things to different parties



Options

Beware, these terms mean different things to different people.

	Requires external party (bank, factor, ...)	Only from within the supply chain
Initiated by seller	Factoring Financing loan Forfaiting Inventory Financing Invoice auction	Invoice discount Dynamic invoice discount
Initiated by buyer	Reverse factoring	

Common situation in the supply chain: Wealthy buyer and supplier is in need of financing.

=> Financing options strongly focus on providing financing to suppliers.

Invoice discount

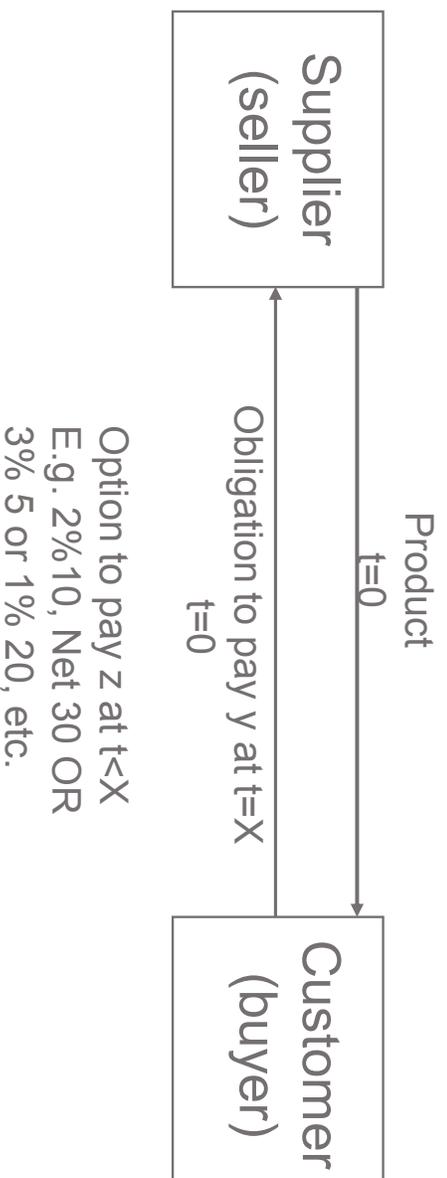
- Initiated by the seller
- No third party involved
- Seller offers lower price for early payment
- Buyer chooses to exercise the option to pay early at a discount



- The payment amount Z will be lower than the invoice amount
- The timing of the payment in exchange for the discount is determined by the seller, but it will be shorter than the original payment term

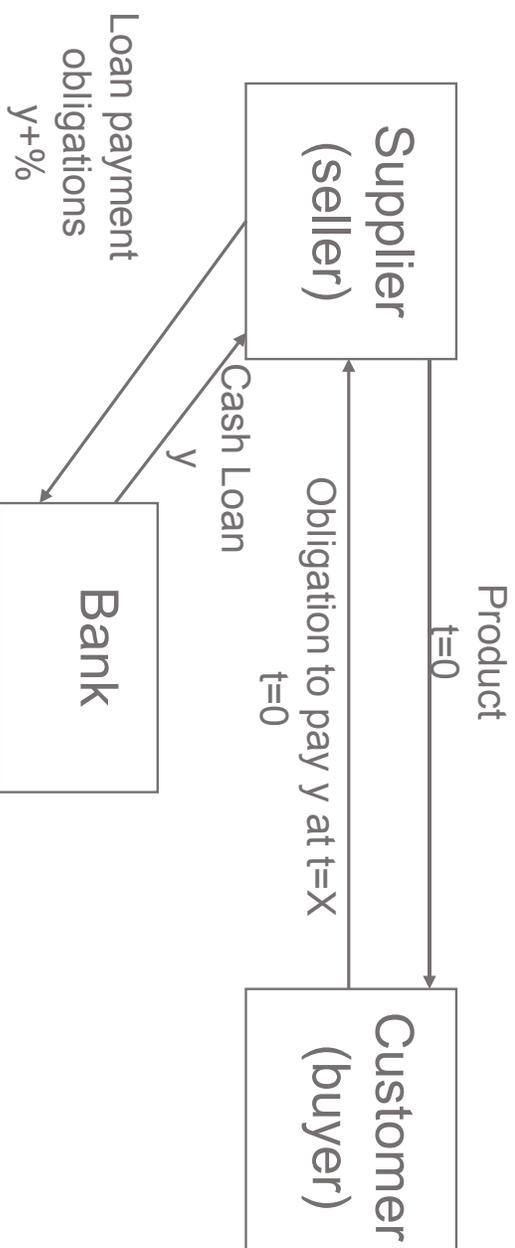
Dynamic (invoice) discounting

- Initiated by the seller
- No third party involved
- Seller offers lower price for early payment, timing of payment and discount rate varies
- Buyer negotiates timing and rates and chooses to exercise the option to pay early at a discount
- The payment amount Z will be lower than the invoice amount



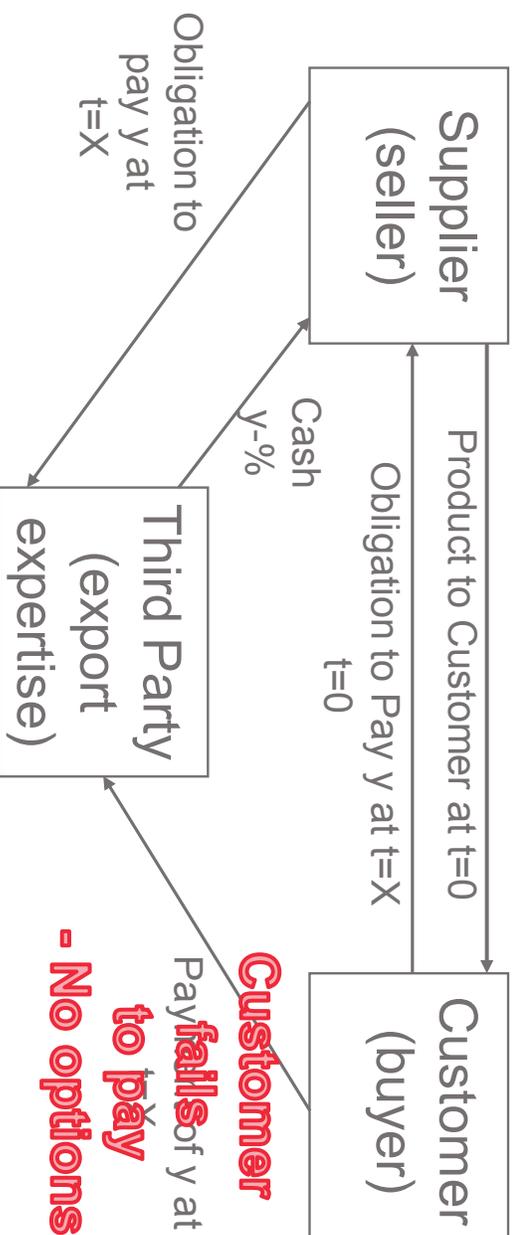
Financing Loan (also known as Invoice Discount+)

- Use the receivable as collateral for the basis of a loan (e.g. from a bank)
- Initiated by the seller
- Third party involved
- Seller uses invoice as collateral for loan with 3rd Party (e.g. Bank)
- Third party issues loan to seller, uses seller credit risk to set the rate



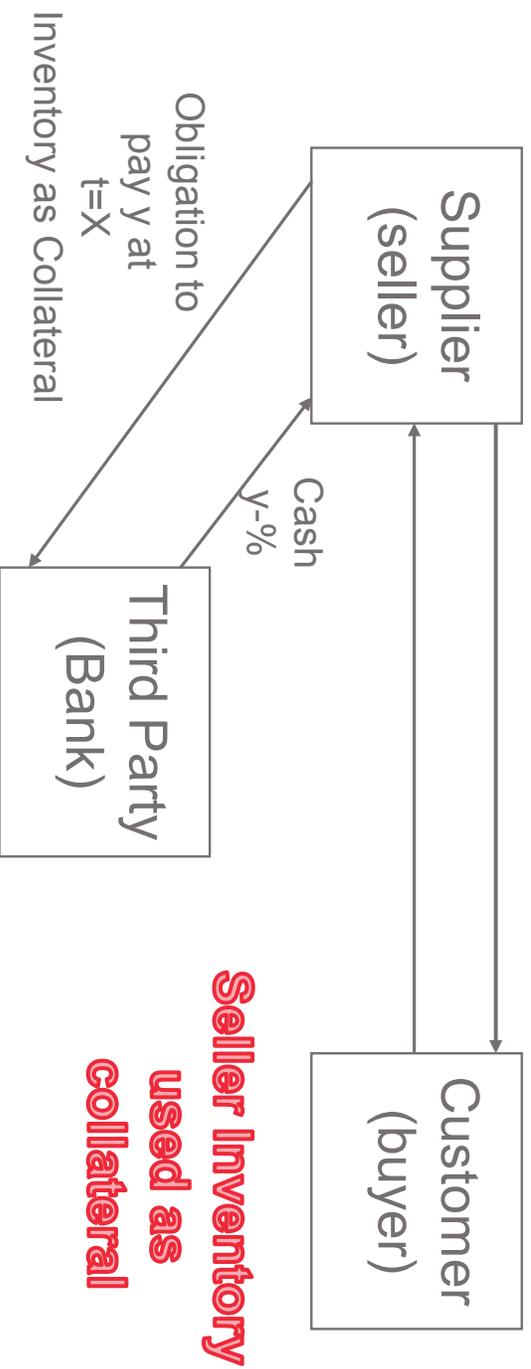
Forfaiting

- Used for exports/imports
- Initiated by the seller
- Third party involved, usually with expertise in export/import
- Seller sells the receivable to the third party at a discount
- Third party buys receivable at a discount, collects from Buyer
- If Buyer (Importer) fails to pay, 3P takes risk, cannot collect from Seller (Exporter)



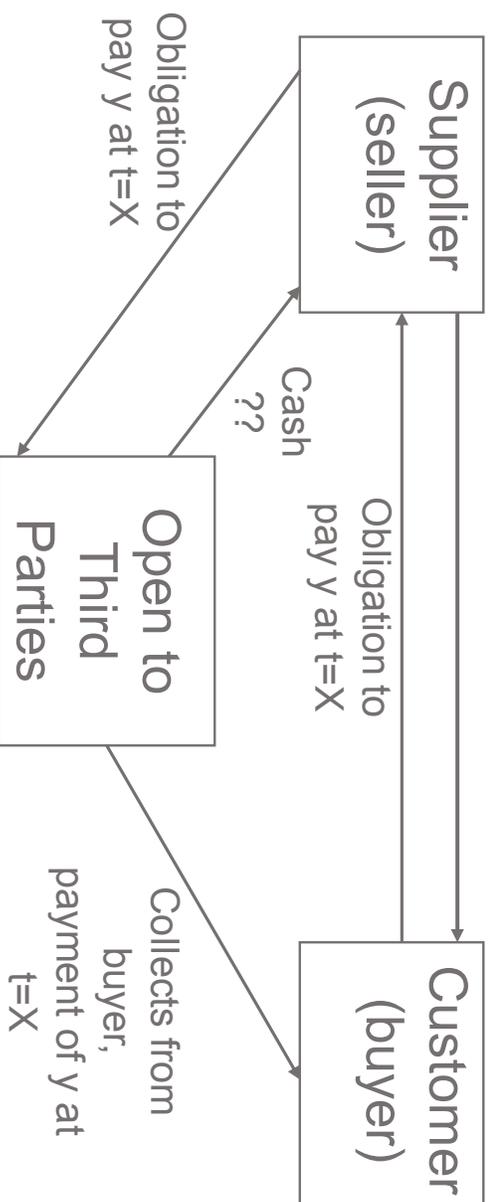
Inventory Financing

- Initiated by the seller
- Third party involved
- Seller arranges line-of-credit or loan in order to purchase materials
- Third party offers loan with Seller's inventory as collateral
- Useful when seller must pay its suppliers before being able to sell FGI; also used to build inventory prior to peak demand season



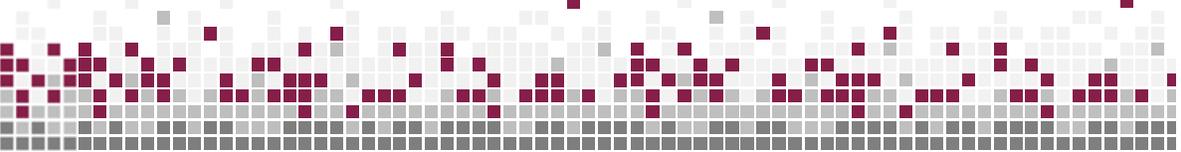
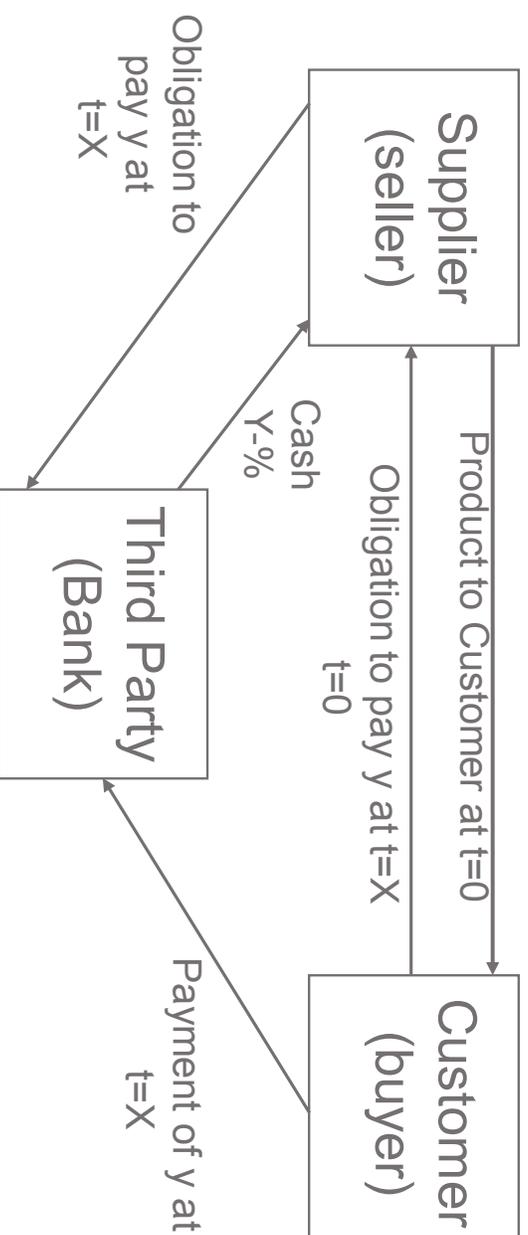
Invoice auction

- Initiated by the seller
- Third parties invited
- Seller arranges an auction process to solicit bids for the invoice (Buyer obligation to pay); seller can use existing auction platform
- Highest bidder wins
- Like factoring without recourse, but using an auction to find third party

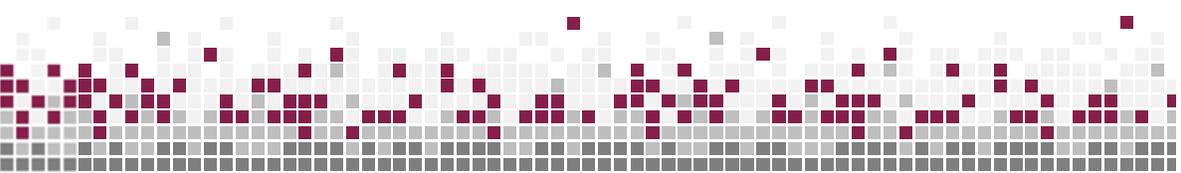


Reverse factoring

- Initiated by the **Buyer** who also initiates the financing options
- Third party involved through the Buyer
- Seller has the option to use the financing options offered
- Third party offers to finance receivable based on the Buyer's credit risk, meaning lower cost loan

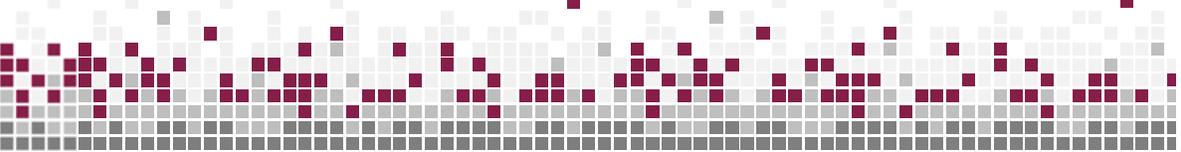


Beyond that ...



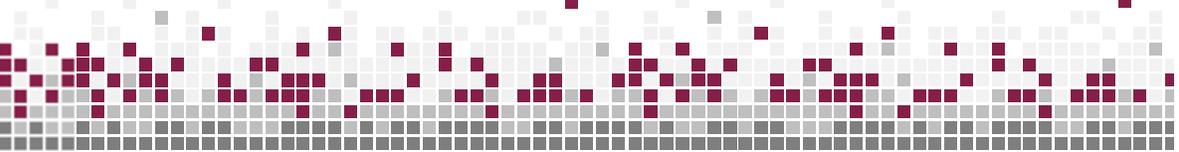
Advanced options

- Utilize automated processes
 - Less uncertainty in timing
 - Lower cost loan operations
- Solicit and use more detailed data about seller and buyer
 - More informed risk assessments
 - Can result in lower risk and therefore lower cost loans
 - Favorable rates for increased visibility and faster process due to automated info sharing, better risk assessment
- Proactive use of information technology for faster and more informed decision making



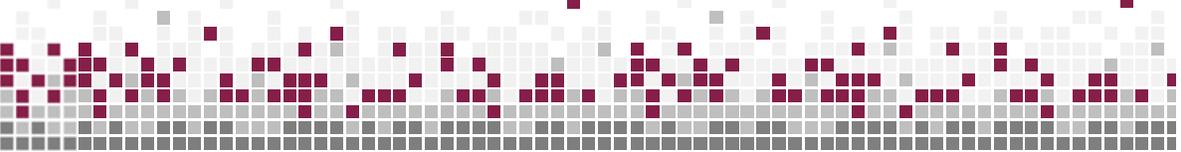
How about – reducing the need for financing in the supply chain?

- Consignment inventory (customers push the capital requirement onto the supplier) ... has a strong impact on financing in the supply chain ...
- Direct shipments (reduce the need to tie up capital in warehouses)
- Various forms of collaboration –
 - Vendor managed inventory (VMI), sales and operations planning (S&OP), collaborative planning, forecasting and replenishment (CPFR), continuous replenishment (CRP), etc....
- Each of them may reduce the amount of inventory necessary to maintain service levels



So what are the benefits of SCF?

- Potential to reduce the Net Operating Working Capital Requirements (NOWC)
 - Potentially lower for both seller and buyer via quicker cash to seller, lower inventories
- Potential lower cost materials
 - Via discounts
 - Lower operating costs with use of technology for information
- Potentially faster cycle times
 - Via faster cash, faster operations
 - Reducing CCC
- Potentially more robust supply chain
 - Via collaborative financial connections and ensuring supplier health
- Benefits to third parties
 - More customers for loans, potentially lower risk



Take away points

- Companies have many options to finance the supply chain, driven by different factors
 - Multiple parties: Buyer, seller, financial 3P, non-financial 3P
 - Initiated by different parties: Buyer, seller
 - Various Terms
 - Assets being financed – receivables, raw materials, finished goods inventory (FGI)
 - Forms – loans, purchase, purchase with risk options
- Alternative to reducing the need for financing from operations.
- Multiple potential benefits for each party