

Trade Finance 101

A broader concept of compliance

The first steps towards new products

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A letter of credit (LC) is a payment mechanism in international trade that carries a “conditional guarantee” of payment from the Buyer’s bank to the Seller. Such guarantee is conditional upon the Seller fully complying with the documentary requirements of the LC itself. This “strict compliance” is one of the fundamental principles governing the LC operation and is defined as the legal principle entitling the bank to reject documents which does not strictly comply with the terms of LC. The issue of strict compliance is applied during the process of checking documents in LC transactions and aims at protecting the Buyer, who has no opportunity to inspect “physically” the goods prior and during the loading, and benefits the Seller by providing fast payment. The bank is also protected against any legal consequence as far as the payment is made upon strict compliance of the Seller’s documents. The goal of the UCP600 is to reduce ambiguity and differences in interpretation and the associated financial risks.

Under an LC arrangement, the Seller is provided with a guarantee of payment from the Buyer’s bank, prior to the shipment of the goods; by using such arrangement the Seller substitutes the credit risk of the Buyer with the his bank’s one.

This method involves a number of contracts between the different parties. When in the sales contract the Buyer and Seller agree to use a LC as a payment method, the Buyer, i.e. the Applicant, requests his bank, i.e. the issuing bank, to set up a payment arrangement in favour of the Seller / Beneficiary. The issuing bank undertakes such payment if all documents are presented in exact conformity with the terms of the LC. As banks do not deal with goods nor they are a party to the sales contract, the requirements of the LC are documentary.

The principle that the bank is entitled to reject documents which do not strictly conform to the terms of the credit ensures the Buyer that the bank will pay if the documents received comply strictly with the terms and conditions of the credit as stipulated by the Buyer, and the Seller knows that payment will be received even if the Buyer would not pay voluntarily for some reason, provided the stipulations of the LC are strictly complied with. With regard to the words “strict compliance”, the crucial question to all parties involved is how strictly the documents must conform to the LC terms. According to UCP600, a complying presentation means a presentation that is in accordance with the terms and conditions of the credit, the applicable provisions of these rules and the international standard banking practice. The examination of documents is usually delegated to a nominated or confirming bank appointed by the issuing bank. The strict compliance rule has long prevail in the common law. The strict compliance “rule” has often caused difficulties and delays in handling this mechanism and courts have stepped in the picture to try and mitigate the overly strict documentary compliance standard, for example, by stating that, when examining documents, banks should not insist on the rigid and meticulous fulfilment of the precise wording in all cases.

Article 14 of the UCP600, establishes the responsibility of the banks in complying with the standard for examination of documents and introduces three new features: examination of the documents on their face, the time given to the banks for examination and consistency between documents tendered.

Standard for Examination of Documents

a. A nominated bank acting on its nomination, a confirming bank, if any, and the issuing bank must examine a presentation to determine, on the basis of the documents alone, whether or not the documents appear on their face to constitute a complying presentation.

b. A nominated bank acting on its nomination, a confirming bank, if any, and the issuing bank shall each have a maximum of five banking days following the day of presentation to determine if a presentation is complying. This period is not curtailed or otherwise affected by the occurrence on or after the date of presentation of any expiry date or last day for presentation.

c. A presentation including one or more original transport documents subject to articles 19, 20, 21, 22, 23, 24 or 25 must be made by or on behalf of the beneficiary not later than 21 calendar days after the date of shipment as described in these rules, but in any event not later than the expiry date of the credit.

d. Data in a document, when read in context with the credit, the document itself and international standard banking practice, need not be identical to, but must not conflict with, data in that document, any other stipulated document or the credit.

e. In documents other than the commercial invoice, the description of the goods, services or performance, if stated, may be in general terms not conflicting with their description in the credit.

f. If a credit requires presentation of a document other than a transport document, insurance document or commercial invoice, without stipulating by whom the document is to be issued or its data content, banks will accept the document as presented if its content appears to fulfil the function of the required document and otherwise complies with sub-article 14 (d).

g. A document presented but not required by the credit will be disregarded and may be returned to the presenter.

h. If a credit contains a condition without stipulating the document to indicate compliance with the condition, banks will deem such condition as not stated and will disregard it.

i. A document may be dated prior to the issuance date of the credit, but must not be dated later than its date of presentation.

j. When the addresses of the beneficiary and the applicant appear in any stipulated document, they need not be the same as those stated in the credit or in any other stipulated document, but must be within the same country as the respective addresses mentioned in the credit. Contact details (telefax, telephone, email and the like) stated as part of the beneficiary's and the applicant's address will be disregarded. However, when the address and contact details of the applicant appear as part of the consignee or notify party details on a transport document subject to articles 19, 20, 21, 22, 23, 24 or 25, they must be as stated in the credit.

k. The shipper or consignor of the goods indicated on any document need not be the beneficiary of the credit.

l. A transport document may be issued by any party other than a carrier, owner, master or charterer provided that the transport document meets the requirements of articles 19, 20, 21, 22, 23 or 24 of these rules.

The examination of the documents “on their face” indicates the review of a document in line with the ISBP14 and features of the document itself. Also the phrase “with reasonable care”, which was used in **Art.13** of UCP500 has been excluded in order to impose stricter liability on the banks in examining documents. For the beneficiary, the time permitted to the banks for examination of documents is an important provision. In UCP600, this has been fixed at maximum 5 banking days from the presentation compared to 7 banking days in the former version. The provision by Paragraph D eliminates the provision of art.13 (a) of UCP500, which stated that documents which are inconsistent with one another will be treated as non-compliant and reduces the complexity presented by the strict compliance principle, so that as long as the contents of the documents are not contrary to the LC, the bank will accept the documents as compliant. Thus the application of this rule lessens the Seller's burden relating to documentary compliance and minimizes the volume of discrepancies.

In addition to this, Paragraph E allows goods in all documents, except for the commercial invoice, to be described in general and not be in conflict with the LC.

Because technical discrepancies, such as typing errors in addresses, may result in rejection of the documents presented for payment, **Paragraph J** introduces a provision regarding the addresses of the Applicant and the Beneficiary that they need not be the same as those stated in the credit, provided they are in the same country. This might ensure that documents tendered will not be rejected on purely technical grounds.

However, although the tolerance given by UCP600, there is no absolute lenience for the Seller as the requirement of strict compliance still remains in **Art.18(c)** in respect of the description of the goods in a commercial invoice: “The description of the goods, services or performance in a commercial invoice must correspond with that appearing in the credit”. By virtue of **Art.14(d)**, the phrase “must correspond” should be construed within the meaning of this provision, which offers less rigidity in documentary compliance. UCP600 offers also some protections for bankers as **Art.16** is easing the tension over banks in dealing with discrepant documents:

Discrepant Documents, Waiver and Notice

a. When a nominated bank acting on its nomination, a confirming bank, if any, or the issuing bank determines that a presentation does not comply, it may refuse to honour or negotiate.

b. When an issuing bank determines that a presentation does not comply, it may in its sole judgement approach the applicant for a waiver of the discrepancies. This does not, however, extend the period mentioned in sub-article 14 (b).

c. When a nominated bank acting on its nomination, a confirming bank, if any, or the issuing bank decides to refuse to honour or negotiate, it must give a single notice to that effect to the presenter.

The notice must state:

i. that the bank is refusing to honour or negotiate; and

ii. each discrepancy in respect of which the bank refuses to honour or negotiate; and

iii. a) that the bank is holding the documents pending further instructions from the presenter; or

b) that the issuing bank is holding the documents until it receives a waiver from the applicant and agrees to accept it, or receives further instructions from the presenter prior to agreeing to accept a waiver; or

c) that the bank is returning the documents; or

d) that the bank is acting in accordance with instructions previously received from the presenter.

d. The notice required in sub-article 16 (c) must be given by telecommunication or, if that is not possible, by other expeditious means no later than the close of the fifth banking day following the day of presentation.

e. A nominated bank acting on its nomination, a confirming bank, if any, or the issuing bank may, after providing notice required by sub-article 16 (c) (iii) (a) or (b), return the documents to the presenter at any time.

f. If an issuing bank or a confirming bank fails to act in accordance with the provisions of this article, it shall be precluded from claiming that the documents do not constitute a complying presentation.

g. When an issuing bank refuses to honour or a confirming bank refuses to honour or negotiate and has given notice to that effect in accordance with this article, it shall then be entitled to claim a refund, with interest, of any reimbursement made

As a matter of fact, this article allows the bank to refuse to honour the draft under the LC if the presentation of the documents is not compliant and provides disclaimers for the banks to protect them. Further Art.16 of UCP600 allows the seller to give prior instructions to the issuing bank, in case of discrepancies, and the Buyer would have also been contacted before the documents arrived.

In an attempt to soften the doctrine of strict compliance, the UCP600 provide a better way for Sellers to achieve compliance and give them a possibility to say how discrepant documents may be handled. It is claimed to provide leniency and a higher degree of compromise to the strict compliance principle. A wider strict compliance does not mean that the data in any documents could go unmatched. Generally, it only widens the scope of compliance where data in any document may differ expressly with one another but should not contradict each other. This approach allegedly ensure a smoother payment under the LC rather than looking for discrepancies and rejecting documents during the process of examination. So, UCP600 limits the depth of examination by banks and makes it easier to resolve issues on discrepant documents, where the seller and buyer, equally have some binding say on how the discrepant documents should be dealt with.

The autonomy principle is also a fundamental concept one should take into account. It is to the effect that the obligation of the banks to pay the Beneficiary does not depend on what the Buyer and Seller agreed, or disagreed upon while they were forming their contract. It rather depends on the documents: if they're alright, the bank must not look at the agreement and whether or not all the terms were met by either parties.

The system of financing these operations would breakdown completely if the dispute between a vendor and a purchaser was to have the effect of freezing the amount in respect of which the Letter of Credit was issued, as a Seller who needs his payment cannot be restricted to only suing the Buyer for his money.

Sellers had for overtime grown to understand that they will receive payment on presentation of the correct documents to the issuing or confirming bank. To have such belief subjected to an underlying contract would be disrupting the known course of international transactions, as it would be taking away the certainty with which international traders enter into transactions.

A Seller who needs financing for goods he received from the manufacturer should be granted the chance to access it through the doctrine of autonomy as his right to be taken as cash at hand.

A Letter of Credit is by its nature independent and a transaction different from the sale, or any other contract on which it may be based. An issuing bank usually discourage the attempt of including terms of the underlying contract into it, for banks are expected to deal with documents as opposed to goods and services. If the documents are correct, the courts will not be restrained from effecting payment. That's it.

A bank is in no way concerned with any dispute the Buyer may have with the Seller. The Buyer may say that the goods are not up to contract: nevertheless, the bank must honour its obligation, for a documentary credit is given by a bank to the Seller with the very intention of avoiding anything in the nature of a set-off or counterclaim.

Currently, there is no such an obligation to the bank that the goods should correspond to the contract description, as the only obligation the bank has is to make sure it is paying on "accurate documents". The Buyer bears the risk of paying and yet the wrong goods are delivered, though in some cases, few banks might expressly agree with the Buyer to be involved in the underlying contract. A confirming bank is not to be held negligent if upon failing to notice discrepancies in the documents, the issuing bank captures them. This is not to be used as an excuse under contributory negligence to deny the confirming bank an opportunity to recover from the Beneficiary. The concept of autonomy makes it illogical that actually, court can uphold payment of a Beneficiary when there is underlying evidence that he is not actually entitled to it.

The only exceptions to this general rule are in cases of fraud and illegality, i.e. when a bank is expected on grounds of public policy to refrain from enforcing payment under an illegal contract.

In some cases, Letters of Credit were enforced because a court was not able to establish fraud, which illustrates the reluctance of courts to enforce an illegality. As they cannot sanction an it, the same can be said in terms of a Letter of Credit based on a contract marred with illegality.

The other exception is fraud: where a Seller presents documents containing representations that are known to him to be untrue, the presentations should not be honoured. This case does not perfectly fit in the fraud exception since the Seller is not aware of the fraud, which can either be in relation to the document; the credit itself or the underlying contractual transaction. For a bank to rely on this exception, actual fraud must be proved and the evidence must be clear, both as to fraud and as to the bank's knowledge. It would certainly, though not normally, be sufficient that this rests upon the uncorroborated statement of the Buyer, as an irreparable damage can be done to a bank's credit in the relatively brief time involved.

Why an issuing bank would not in the first place be permitted to be critical on the underlying contract in order to avoid the absurdities of the presence of fraud? Furthermore, the little regard accorded to the underlying contract has facilitated false calls, abuse and fraud and plays a significant role in the existence of the Letter of Credit

A clear distinction on the Seller's right to certainty of payment and his factual right to payment under the underlying contract is clearly essential: the former is only possible if the latter is existing.

Therefore, it is not possible to conceive the underlying transaction as separate from the Letter of Credit, for it contains a unilateral payment system of considerable complexity. The documentary arrangement has the required capacity to protect the banks under the doctrine of strict compliance and the Buyer under the autonomous principle, it therefore does matter which mode one chose. Such choice will certainly depend on whether one is Buyer or a Seller, for any of these, it only seems logical that the appropriate mode will be strict compliance and autonomous principles respectively.

Let's be honest: the main reason behind the request to issue a documentary credit is most of the times the lack of mutual trust, especially when it comes to payment. That's where FinTech shall step in propelling the financial industry with the goal to modernize Trade Finance, by focusing in particular on the tools that help ensuring transparency throughout the transaction. Businesses regularly apply IoT to logistics and supply chain, to aid in shipping perishable goods or to detect equipment failure. Blockchain and smart contracts are also "hot topics" in the financial industry as these two technologies can modernize Trade Finance, with important tasks

like documentary management and payment. By looking carefully at the state of current projects, one can easily realize that they are prime candidates for modernizing letters of credit.

Blockchain in particular is a comprehensive, chronological “register of transactions”, grouped into individual “blocks,” which are “time stamped”, then connected to the previous block. Generally, they fall into two broad categories: “open blockchains”, allowing public access, or “permissioned blockchains”, allowing access only to specified individuals. Both types can be tailored by parties according to the needs they cover. One of the core features of blockchain is “decentralization”, meaning that neither a single person, or entity can control it; instead, each “node” is connected to the same “peer-to-peer” network that runs under the same “protocol.” When a participant updates the ledger, each node checks the transaction via “consensus” before the change is written into the blockchain. These changes can be thought of as additions, as previous versions of the blockchain remain unaltered: this is why blockchain is often considered to be “immutable.” The system automatically updates on each node so that every participant access the latest information. Thanks to its high degree of transparency, blockchain is often described as “trustless.”: it helps parties in documentary management for documents are stored and verified through consensus.

More recently, blockchain has also been used to generate documents like bills of lading in letter-of-credit transactions. Because international transactions involve many documents, with multiple potential phases of correspondence, this technology is an easy way to “store”, organize, and verify documents and can also be used in tandem with smart contracts to further automate international transactions.

Smart contracts can be defined as a written set of mathematical rules that, once triggered, automate certain “promises” between parties. While a smart contract may actually be a “legally binding” contract, more often this locution means that the “smart code” has been duly verified and stored in the blockchain.

Smart contracts are commonly used to facilitate payment in international transactions and parties use them in order to automate payment when a certain condition is met, such as delivery, for instance: they can execute the parties’ agreement securely and quickly, with no need for a middleman or an invoice either.

If the combination of smart contracts and blockchain can disrupt the way letters of credit traditionally work, IoT represents the key technology that could transform the financial industry since it has already changed the way people seek information and interact with others. While it is most commonly associated with consumer goods, businesses have also begun to take advantage of technologies like radio-frequency identification (RFID) and complementary technologies like sensors, actuators, and oracles. It is often described in terms of devices that connect to the Internet and in more general terms as “physical objects” using technology in order to connect in real-time with the surrounding environment, devices, and external information systems. As a result it should not be restricted to a certain label or definition as this restriction might hinder growth.

Four basic things work together to form it: people, processes, data, and things.

It is more than just connecting items to the Internet: it is about how people, processes, data and things can “work” jointly with the goal of creating “value”. At its most basic level, RFID is a tagging system that provides the means to track “physical goods” and deliver the information to an electronic database through a wireless system that tracks the location of tagged objects via a GPS device, which can be tagged in turn by items. Each tag has a unique Electronic Product Code (EPC), similar to a bar code, though able to hold more information, that can be rewritten and can function, even when is not easily visible. These kind of small “powerhouses” can transmit valuable information for companies throughout the supply chain along with RFID, which are commonly used in shipping container as they allow companies to track the location and quantity of goods while they are in transit, actually throughout the entire supply chain, in order to gain valuable information that would otherwise be unknown or undiscovered until the goods reach their final destination.

RFID and IoT capabilities are enhanced by sensors and actuators which collect information and data that can be accompanied by actuators capable of implementing decisions as they can react to things like weight, temperature or moisture. As a result, IOT can sense, process, and respond to data without the need for human intervention.

We will therefore be acting in a situation of “continuous knowledge” and “situational awareness”, where one can compare the current state of the physical environment with its predicted future one. Devices can specifically be designed in order to work with smart contracts, while blockchain is limited to the data in its own network.-A documentary credit might for instance specify that the temperature of the container cannot exceed twenty degrees Celsius and also include the Incoterms that governs the transaction, as this dictates who bears the risk of loss of goods that are tracked by IoT all along the transaction. The Applicant will have the primary control and responsibility of drafting the Letter of Credit, as he is more knowledgeable than the Issuer about the terms that need to be included, based on the underlying sales contract. After drafting the documentary credit, he can upload the documents on the blockchain for the Issuer to approve, deny, or suggest changes.

In spite the fact that international transactions involve third parties, such as ports or customs authorities, the current set-up still allows the Issuer plays an important role in ensuring the credit accounts for them. In the “new picture”, once the Letter of Credit is finalized, the Issuer will add the respective parties to the permissioned blockchain, and still be able to control and limit the information available to third parties. Likewise, the bank will

also be to include third parties that are not directly related to transaction, since blockchain is particularly useful for transactions involving multiple parties and communications, a sit eliminates the need for “physical presentment”

Coming to the operativity, before the Beneficiary ships the goods under the sales contract to the Applicant, each item, can be equipped with an active RFID tag, a sensor and a GPS device: once the goods are loaded onto the container, a smart contract generates a bill of lading based on the data collected by the RFID, for documents generated these data are tamper-proof and thus ensure the information reflects the reality, mitigating the risk fraudulent documents. Every time blockchain cannot “pre-generate” a document due to any possible limitation of IoT, the third party would need to manually upload the document onto the blockchain. Regardless of whether a document is automatically generated or manually uploaded, the system reduces the role of the Issuer in determining documentary compliance, because he gets involved only in case something goes wrong. Consensus allows the blockchain to first verify the information of the document with the terms of the Letter of Credit, then, if no discrepancies are detected, it notes that it is compliant and a smart contract authorizes goods to go on to the following step in the transaction without any interruption or involvement by the Issuer. If there is a discrepancy that is not related to the material or physical conditions of the goods, the blockchain notifies the Issuer, who has the final word on whether the documents are in compliance, based on standard banking practices. Should he determine the documents are not in compliance, he has the discretion of allowing the Applicant to waive the discrepancies.

Generally, the Issuer favors having limited involvement, as a bank often expresses concerns about exercising any degree of discretion when checking for documentary compliance; similarly, the Applicant is able to see the updated ledger, so the Issuer no longer has to inform the Beneficiary of whether the documents are in compliance. How long does the issuer have to make a decision on whether it will allow the Applicant to waive the discrepancy? The Issuer will be reviewing only one document at a time and will have fewer documents to review compared to a traditional, paper-based letter-of credit transaction as an aggregate amongst all of its customers. As a result, he does not need seven five days to determine whether the Applicant will be able to waive the discrepancy.

It is evident that incorporating physical conditions violates the traditional independence principle though, because when the Issuer is able to review a document, either because IoT does not detect a problem or when a third party contract is involved. As long as the documents reflect the Letter-of-Credit terms, it would be irrelevant whether the goods are at the correct temperature or whether the Seller shipped nonconforming goods. The Issuer must honor the Letter of Credit, and the Applicant would need to seek its own judicial remedy. As with traditional paper-based letter-of-credit transactions, the Issuer is not making any investigation or inspection as to the quality of the goods. IoT step in to solve the concern that banks should not be compelled to investigate and verify facts outside their normal business. In this new model, IoT is the “source of knowledge” and requires no expertise from a bank at all.

The strict compliance principle also still applies as the data from the blockchain are reflected in the documents, so the bank is still adhering to the rule of dealing only with documentary conditions. In addition, the basis for the such a principle is that the Issuer should not impose its own subjective opinions on the underlying contract. The documents being produced through the blockchain and IoT are “objective facts”. In fact, these technologies help the Issuer in adhering to the strict compliance principle, because computers are certainly much more objective than humans. Furthermore, they help parties in detecting potential documentary discrepancies: when there is one, they should follow the traditional waiver process whenever possible.

Though, many discrepancies go beyond violating the Letter-of-Credit terms and stipulations, as they also violate the underlying sales contract. IoT can detect such discrepancies at any point along the supply chain. Without IoT, the Applicant cannot waive the discrepancy because, for instance, goods being shipped would spoil, in case of perishable ones. Instead, IoT allows to shift the focus from “waiving” to “fixing” the discrepancy. It is therefore crucial that, once a discrepancy is detected, the Beneficiary is able to take immediate action, and fully exploit the advantage of smart contracts, as well as IoT technology. The blockchain should immediately notify the Issuer and the Beneficiary in case the set parameter goes out of range.

Assuming the Beneficiary still bears the risk of loss at that point in the shipment, he would have two options: wait for the Issuer to decide whether to allow the Applicant to waive the discrepancy or attempt to cure the defect before the Applicant decides whether to waive or not. Although the latter option is untraditional, allowing the Beneficiary to “cure” a defect is one of the advantages in a Letter of credit and, in particular, in the UCP (Uniform Customs Procedures).

Alternatively, in combination with sensors, parties could use actuators to implement decisions. Instead of just sending a signal for someone to check on the goods if they go out of the specified range of data, actuators can automatically change the internal parameters, to make them compliant; theoretically, this compliance should substantially reduce, or even eliminate, any discrepancies within the Letter of Credit. When IoT detects a problem, the Beneficiary can overstep the Issuer in the attempt to cure it, althoughh, once again, this arguably violates the independence principle.

The Applicant and the Beneficiary purposely entered into a letter of credit, while the Issuer merely acts as a simple intermediary. If there is a problem with the goods, the Applicant should sue the Beneficiary through a “contract claim”. Physical information goes to the underlying sales contract, not the Letter of Credit, nor any other Trade Finance instrument. If, for instance, the Issuer had the right to ask the Applicant whether he wants to waive the discrepancy, this would violate the independence principle as well, as the Issuer is not allowed to consider the quality of the goods. Similarly, allowing the Issuer to be involved would also violate the strict compliance principle, because the sales contract is separate from the documents the Beneficiary must provide in accordance with the Letter-of-Credit terms and stipulations. IoT simply grants the Applicant and the Beneficiary with more power to control what they contracted for in the underlying sales contract. In the end, the synergy between blockchain, smart contracts, and IOT will facilitate the final step in a Letter of Credit transaction: payment.

Before recent innovations, the independence principle was rightfully steadfast, as the Issuer could not inspect the goods. Applicants and Beneficiaries were helpless as the system heavily relied on the Applicant waiving discrepancies. Nowadays, the underlying sales contract can “coexist” alongside the Letter of Credit, because technologies facilitate the documentary compliance step in documentary credits process by linking “compliance” with “performance” and, in addition, they allow the Applicant and the Beneficiary to make informed decisions about the goods throughout the whole shipping process. If we look further, they are mostly able to replace the Issuer’s main responsibility to act as an intermediary between the parties in effectuating payment, by linking it with performance and neutralizing the risk between the Applicant and Beneficiary. This latter has even the incentive to fix any problem with the goods, rather than waiting anxiously to see if the Applicant waives the defect; similarly, the Applicant no longer has to waive defects and pay the Beneficiary in full, although he knows the goods do not comply with the underlying sales contract.

The poor fit between discrepancies and default suggests a problem with the current system for there is a disconnect between the Seller’s performance of the underlying sales contract and the Seller’s right to be paid under the letter of credit.

As the main reason parties agree on a letter of credit is a lack of trust, industry should move toward a truly “trustless” system with the least human involvement possible, that will remain a viable commercial credit mechanism for many decades to come.

The fundamentals of trade and Trade Finance have not changed for a very long time and are characterized by paper and manual operations. While the back office is ripe for next-generation transformation, in the middle and front office there is potential for far greater automation and use of real-time data, for example in the accounts receivables process, in SME credit underwriting, loan booking, and monitoring and indeed for relationship managers, human and virtual, to surface and analyze data to gain insights and provide more data-driven recommendations to corporate clients along the financial supply chain. Customers and suppliers often point the finger at banks for their rigidity and slow turnarounds. Bankers worry about process lapses, risk issues, and huge piles of unstructured data. The biggest problems come down to data, trust and authenticity. The most compelling technology solutions today shift the way Trade Finance transactions and portfolios are monitored and managed; they seek to help banks balance corporate clients’ cash and working capital lifecycle demands with their own capital, compliance, and cost conundrums. Times have changed and, in the background, the industry is going through a pivotal period of transformation following the push towards transmitting more “structured data” between counterparties, largely driven by SWIFT, i.e. the “mother” of all changes to letters of credit and guarantees message types. Alongside these foundational changes, a handful of initiatives have emerged, based on distributed ledger or blockchain solutions, with the specific goal to promote faster and more secure transparent money and “document” (?) transfer. These new networks must also be considered alongside other disruptive technologies such as Artificial Intelligence, which will provide the automation algorithms of the future while the internet of things (IoT) unleashes digital data from the physical world to potentially change the nature of end-to-end financing for imports and exports. This means that we will have to look at how banks validate and monitor quality, manage trust, and provide new risk mitigation and financing services along the supply chain, under a totally new and interesting perspective. IoT provides an integrated network of devices, embedded with software and sensors that connect and exchange data, thus standing a huge opportunity to deliver on the promise of “connected commerce”. While banks have dreamed of a “track and trace” utopia, being able to “verify” and “feed” data into the financial supply chain about the quality of goods shipped or claimed has been virtually impossible. As a result, banks have played the role of postman, transferring documents and exchanging money, the industry policy merely concerning itself with compliance of the financial transaction and the contract between the importer and exporter. In the real world bankers are limited in their ability to monitor risk and fraud along the entire trade flow. Take perishable goods as an example: they must be transported and received in a “good condition”, which stand as the measure of quality that should be tied and monitored against the credit agreement. Financing should be linked to the state of

the collateral. As we have seen before, the advent and the extending use of IoT, allows for the opportunity to continuously monitor “qualitative aspects” and to improve the efficiency of financing. This will reduce the risk for banks and their counterparties, such as ECAs, for instance, and will allow them to cut out friction that comes with disputes, by allowing them to make more informed decisions when submitting and approving limits and facilities, with a special focus on smaller businesses or those with less credit history.

As a matter of fact, the know your custode process, also known under the acronym KYC, remains a big barrier to Trade Finance and it is maybe it's time to coin a new one, such as KYG (Know Your Goods) or KYC (Know Your Commodities). To be able to do KYG / KYC can truly ease Trade Finance in going forward, not only when it comes to financing: in a world that places increasing premium on sustainability and ethical sourcing, the ability to “Know Your Goods or Commodities” is definitely the key for proving provenance and building trust in supply chains.

Nowadays the most forward-looking banks and actors in Trade Finance industry are not looking at new technologies in isolation, as the potential of the combination of IoT with blockchain provides the basis for the apps to come by infusing trust into data exchange and analytics. Distributed ledger technology (DLT), the underpinning technology of what is commonly known as blockchain, improves transaction efficiency, providing security and proof about the exchange of information and value. Where IoT data feeds transactions and triggers smart contracts on a blockchain, we can monitor the authenticity of goods and commodities and avoid fraudulent invoices that might result in defaults during the funding process.

The future path for Trade Finance is the emergence of blockchain, which is really a great advantage for the industry in minimizing the product flow duplications. Also, the concept of IoT relevance emanates primarily for “physical” supply chain and becomes relevant for Trade Finance from the time when shipment is initiated by the Seller till the time the goods reach the shores of the Importer country. Indeed, there is a real need to explore on how IoT can become more relevant from the Trade Finance perspective.