Deutsche Bank
Corporate Bank

A Guide to Trade Finance

Contributing Editor
David Meynell (TradeFinance.Training)

Deutsche Bank contributors
Russell Brown (Global Head of Trade Finance, Financial Institutions)
Clarissa Dann (Editorial Director, Corporate Bank Marketing, Trade Finance)
Sandra Primiero (Global Head of Structured Commodity Trade Finance)
Daniel Schmand (Global Head of Trade Finance and Lending)
Werner Schmidt (Global Head of Structured Export Finance)

Published April 2020

Contents

Foreword

Trade is at an inflection point and so, in turn, is the finance that underpins it. Trade and geopolitics, noted the Organisation of Economic Co-operation and Development (OECD) in 2019, are moving away from the multilateral order of the 1990s – and this is a structural change to the ecosystem. Other ongoing themes include the sudden external shock of Covid-19 in 2020, as well climate change and digitalisation. Despite the increased focus on digitalisation, however, conversations have been affected by the difficulty governments and corporates have had in achieving consensus at what this actually means in terms of skills upgrading and technology investment.

Daniel Schmand,
Global Head of Trade Finance and Lending, Deutsche Bank

While the trade war between the US and China is of course bad for trade – with Covid-19 wreaking a different sort of damage of its own – uncertainty and volatility helps trade finance demand. I see a massive opportunity. Doing cross-border business, particularly in emerging markets, is a risk for which there is risk premium. So it is a good time to be in the business, provided you are efficient.

As the bank starts a new decade and celebrates its 150th anniversary – our foundation having been fostered on international trade finance – it remains at the heart of trade finance evolution and education. And it is for this reason we present this *Guide to Trade Finance* to the industry as an anniversary gift. Put together by seasoned trade finance experts, it explains the fundamentals of financing cross-border trade in practice, so is ideal for discussions when some parties may not be familiar with this technique and all its many variations.

Enjoy the journey

Daniel Schmand

1

Introduction to trade finance

1.1 Background to trade

Trade has a daily impact on the lives of all the world's population and encompasses the trading of goods and the provision of services across international borders, with a view to securing payment and/or financing with minimal risk.

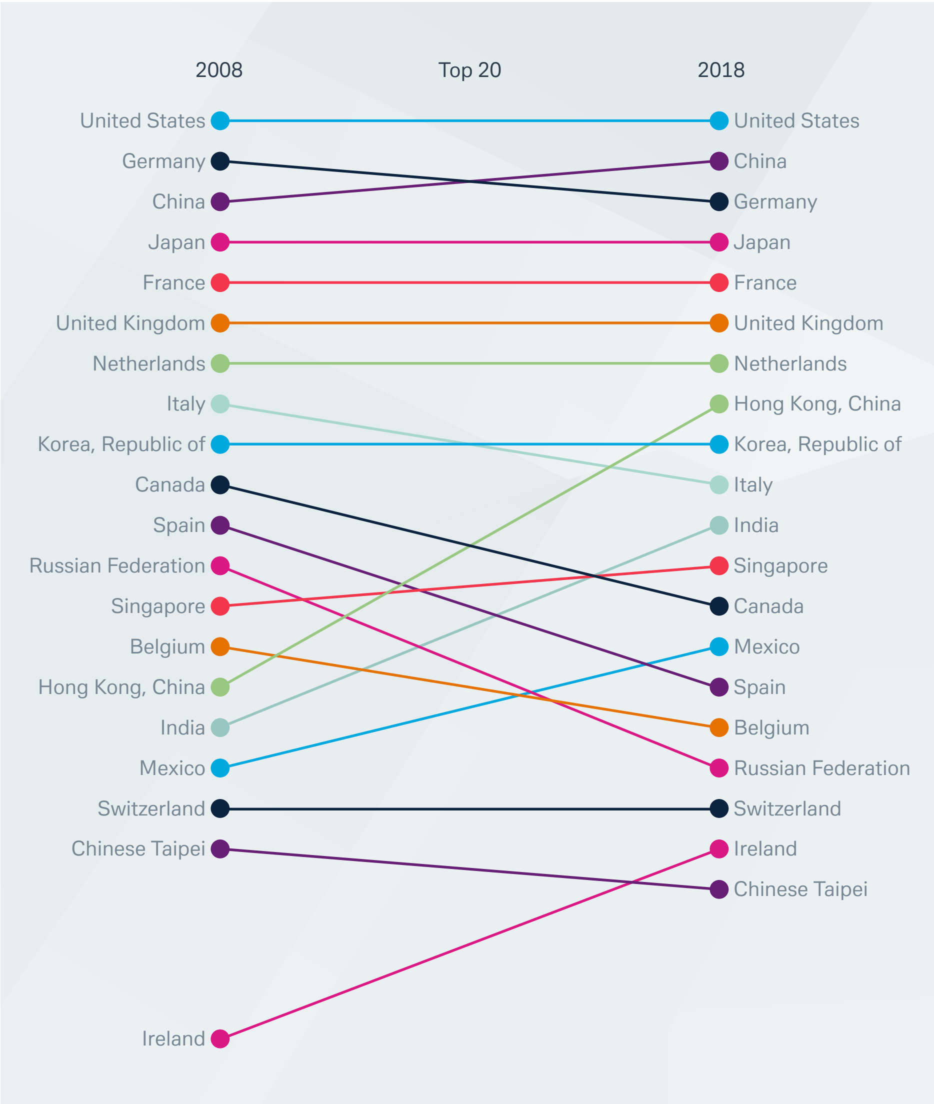
Global economic growth depends on trade. The ability of one economy to export what it is good at and generate revenues for what it cannot produce itself has been going on for thousands of years. As academics Lipsey and Chrystal put it, "With trade, each region can specialise in producing goods or services for which it has some natural or acquired advantage. Plains regions can specialise in growing grain, mountain regions can specialise in mining and forest products, and regions with abundant power can specialise in manufacturing."[1]

According to the World Trade Organization, in 2018 the value of world merchandise trade stood at US$19.67trn, having grown at 3% on the previous year. Commercial services hit US$US5.63trn, having grown at 8% with the United States (US) at the top of the leader board as the world's leading overall trader of merchandise and services, but with China at the top when it comes to exports.[2] However, from 2020, the WTO predicts significant contractions as Covid-19 demand and supply shocks bite around the world.

Developing economies outperformed or equalled the performance of developed economies in world trade in most of the past 10 years, and the world trade order continuously shifts as developing economies become developed (for example China), and geopolitics, such as the US/China trade wars and the emergence of the Belt and Road Initiative reroute and evolve trade corridors.[3]

However, when carrying out cross-border business, importers and exporters are exposed to specific risks, such as exchange and currency risks, non-payment, damage to goods in transit and fraud, etc. These risks and how to mitigate them are explained in Section 1.3.

Figure 1: World's leading traders of goods and services 2008 and 2018



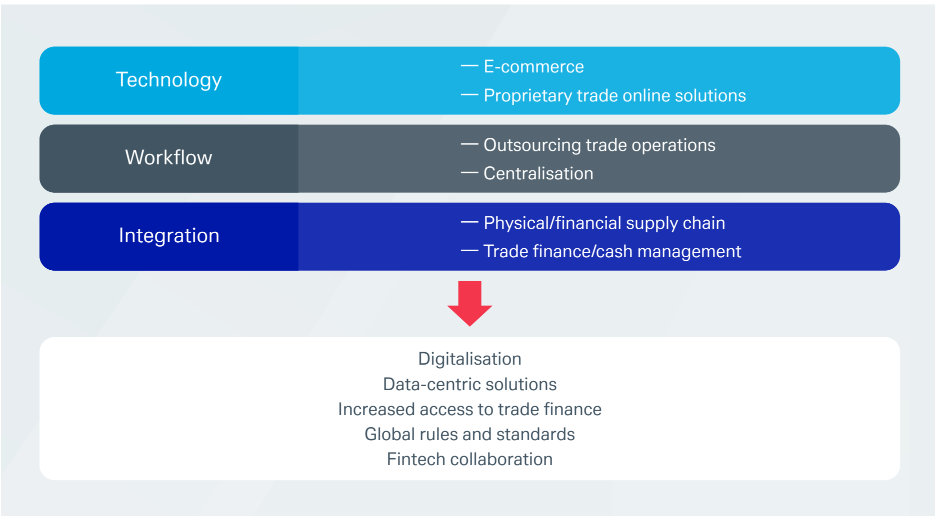
Source: WTO-UNCTAD-ITC estimates

1.2 Financing trade

In a book published in 1776, the philosopher and economist Adam Smith stated that humans have a propensity to truck, barter, and exchange one thing for another.[4] The discovery of promissory notes in the form of clay tablets, providing for repayment of an amount and interest on a specific date, found at the site of ancient Mesopotamia, adds great weight to his statement.[5]

The earliest forms of trade, prior to the existence of money, depended on barter and exchange of goods. Introduction of the written word and forms of monetary exchange brought with them the opportunity for innovative financing solutions. We have now reached a moment at which our approach to the handling of international trade and finance is in the process of total re-definition. In order to mitigate the various risks, it has always been essential to have access to data for assessments to be made. In the current evolving digital world, data is more widely available and accessible than ever before.

Figure 2: Trade finance: transformative developments over the past 30 years



Source: David Meynell

Technology has affected the lives of people all around the world, particularly in the last few decades. Many of these benefits are now surfacing in the trade finance industry as digital information becomes more readily accessible, convenient and available. The major challenge is to transparently, digitally and efficiently share information across the numerous involved entities in a trade transaction including suppliers, buyers, logistics, financial institutions, insurers, etc.

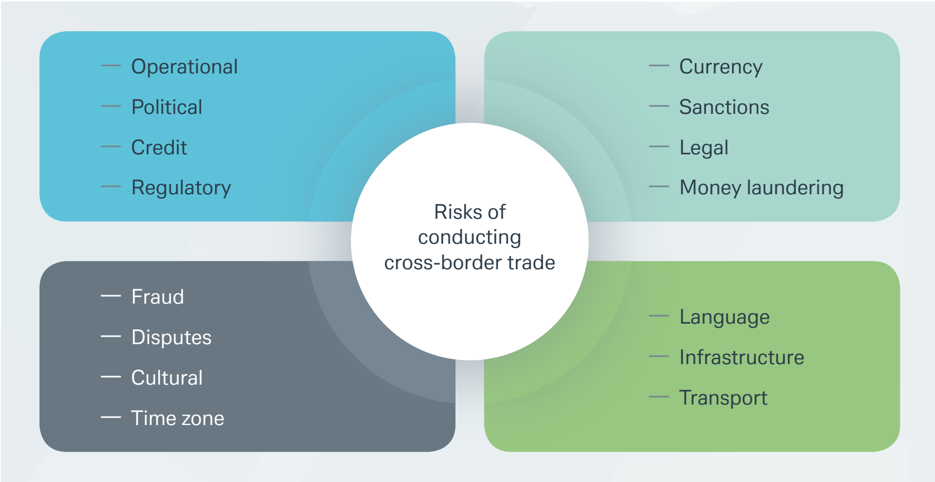
1.3 Risk mitigation

However, even in a digital world, what will not change is the need for risk mitigation. The key to fulfilling a successful trade transaction is to understand and mitigate the associated risks. Not all risks may be applicable to an individual trade transaction, but it is important to have an awareness of the involved issues and associated risks.

There are many risks that entities involved in international trade need to be aware of. Thorough research will help to identify and alleviate a number of these risks and various avenues are open for access to such information. When entering into an international trade transaction, the overseas entity may be unknown to the domestic party. Status enquiries and credit references can be obtained from numerous sources in order to obtain information in respect of the counter-party, based upon historical trading data. And all parties involved in the sale and purchase of goods or services overseas have to keep on top of the value of the domestic currency against a foreign currency and take steps to protect the transaction against currency movements. See Section 8 for more on foreign exchange risk management.

The first step to alleviating risk is to understand the business of a customer and apply KYC (Know Your Customer) principles. The extent of such KYC may also depend on national and regional banking regulations. At a minimum it should include an awareness of sourcing of funds, purpose of transactions, compliance checks and regular ongoing reviews.

Figure 3: Risk issues



Source: David Meynell

1.4 Contracts and role of the International Chamber of Commerce (ICC)

Underpinning all trade relationships is the contract itself; in other words an agreement between two or more persons or entities, which may or may not contain specific terms, in which there is a promise to do something (e.g. export goods) in return for consideration (payment).

1.4.1 Conditions for a valid contract

According to the London Institute of Banking & Finance, for a trade finance contract to be valid, the following conditions must be met and parties should always take legal advice as local laws may well be applicable irrespective of the governing law (e.g. English law or New York law) selected:[6]

— There must be a firm offer and acceptance of that offer;
— There must be an intention to create a contract;

- There must be consideration – each party provides something to the other;
- There must be capacity to contract – for a limited company that means that the nature of the business is within the objectives set out in the company's memorandum and articles;
- Consent must be freely given without duress or based on false information; and
- The purpose must be legal.

1.4.2 ICC Banking Commission

ICC was founded in 1919 under the leadership of its first president Etienne Clementel, a former French Minister of Commerce. Since that time the international secretariat of the organisation has been located in Paris, France. ICC's primary objective is to promote international trade and investment as vehicles for inclusive growth and prosperity.[7]

Core to this is ICC's guidance on international contracts which comprehensively sets out the rights and obligations of all parties.

ICC is comprised of five Policy Hubs, with one of the most prominent being the ICC Finance for Development Hub, Banking Commission (ICC Banking Commission), which serves as a global forum and rule-making body for banks worldwide, with particular focus on the financing of international trade.

The ICC Banking Commission embraces three main activities:
1. Rulemaking;
2. Advocacy; and
3. Financial inclusion and sustainability.

Over the years, the ICC Banking Commission has become a leading global rule-making body for the banking industry, not only producing universally accepted rules and guidelines for international banking practice, but also providing leading edge research and analysis. Further details of ICC rules and standards can be found in Section 2.8.

2

Transactional trade finance

2.1 Basic principles of the risk ladder

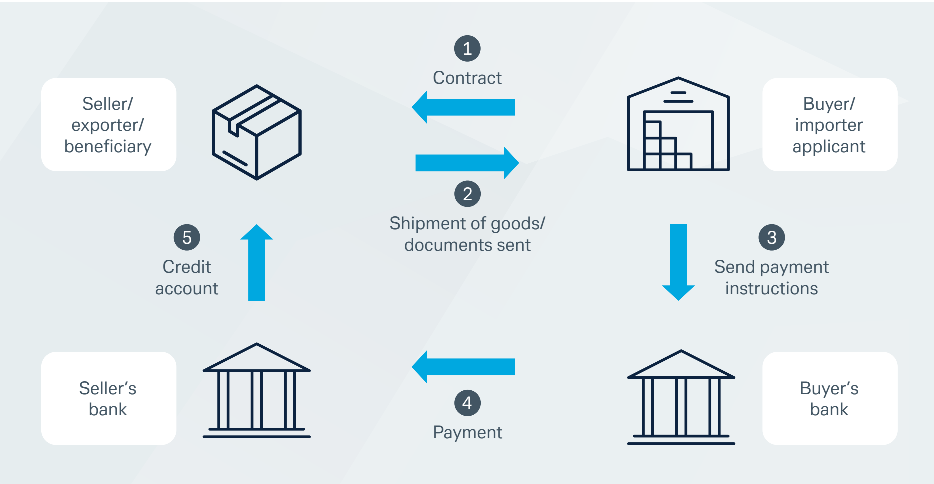
In Section 1, the inherent risk of conducting cross-border trade was set out, but what is the best way of matching settlement method to the risk? Enter the risk ladder – a very useful and important tool to help buyers and sellers determine the most appropriate form of settlement depending upon client relationship, location of the parties, goods or services that are involved, movement of funds and documents, and the options for settlement and financing.

Figure 4: The trade settlement risk ladder

Method of payment	Receipt of goods by buyer before payment	Settlement date	Risk rating for seller	Risk rating for buyer
Open account	✓	As per contract terms	Highest	Lowest
Usance collection	✓	At maturity as per collection terms	Medium to high	Low to medium
Sight collection	✗	After presentation of documents	Lower	Low to medium
Documentary credit	✗	After presentation of documents at sight or maturity as per contract terms	Low (against compliant documents)	High
Payment in advance	✗	Prior to shipment	Lowest	Highest

Source: www.tradefinance.training

Figure 5: Open account settlement



Source: TradeLC Advisory

2.2 Open account

It is estimated that around 80% of trade transactions by volume are handled on open account terms.[8] Despite the slowdown in merchandise trade growth as a result of escalating trade tensions, this is an enormous market, with total volumes having hit a record US$19.67trn in 2018.[9]

In general terms, open account is normally utilised when each party is known to the other and trusted.

This is how it works: a seller sends goods to its buyer together with the applicable documents including an invoice specifying the payment terms. As is apparent, the seller will be placing a great deal of trust in the buyer to pay, as the goods are shipped and are often available to a buyer in advance of when payment or acceptance to the seller has been arranged (see Figure 5).

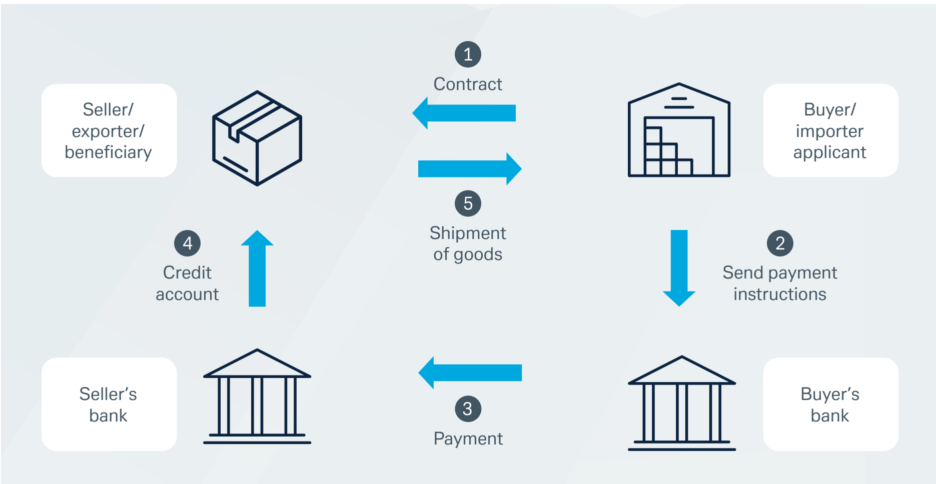
2.3 Payment in advance

In this situation, the buyer pays the seller in advance of the goods being shipped. It is only once the seller receives the funds that any arrangements will be made for the goods to be shipped or, in certain circumstances, to be manufactured.

It can be seen quite clearly that whilst this is enormously advantageous for the seller, it is not necessarily so for the buyer.

It is common for an advance payment to be secured by the issuance of an advance payment guarantee (see Section 2.6), guaranteeing to refund all or part of the advance. The advance is generally a percentage of the value of the contract to be paid by the buyer to the seller upon signing of the contract. The guarantee covers non-performance by the seller in delivering all the required goods.

Figure 6: Payment in advance



Source: TradeLC Advisory

2.4 Documentary collections

Documentary collections are used where there is an intention to obtain payment and/or acceptance of financial documents and/or commercial documents by delivering the documents under certain specified terms and conditions.

2.4.1 How it works

Under a collection, a collecting bank presents financial and/or commercial documents related to the goods to the importer for payment.

For the exporter, a documentary collection bridges the gap between open account and documentary credits by providing a potentially higher level of security than open account, through the control of the documents by banks, without the often onerous terms and conditions of a documentary credit (see Section 2.5).

For importers and exporters, a documentary collection attracts cheaper bank costs than those associated with a documentary credit.

Documents against payment (D/P)

— Documents are payable at sight; and
— Documents are delivered to drawee only upon payment.

Documents against acceptance (D/A)

— Documents are payable at a fixed or determinable future time;
— Documents are delivered to drawee against acceptance of a financial; and
— Document or execution of a payment undertaking (e.g. a promissory note).

2.4.2 Key considerations

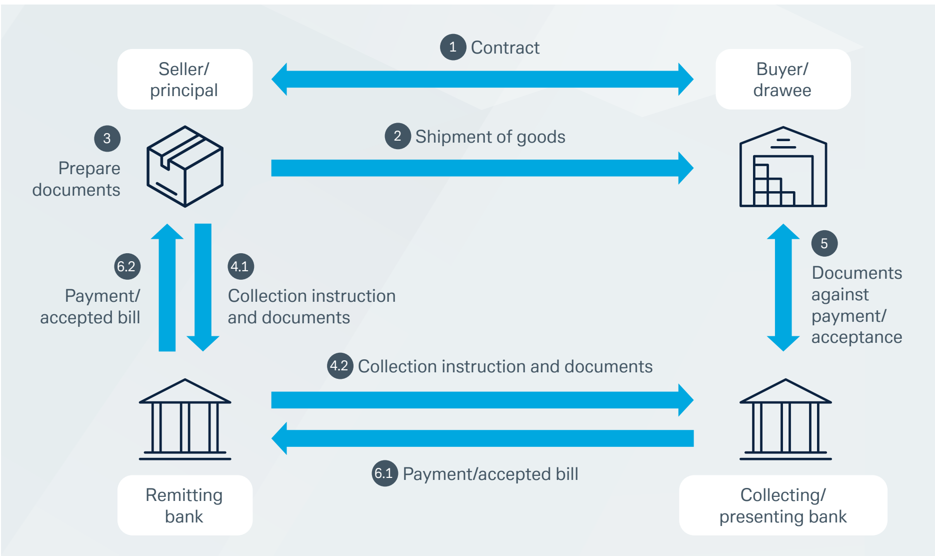
Parties involved:

— Principal – the party entrusting the handling of a collection to a bank.
— Remitting bank – the bank to which the principal has entrusted the handling of a collection.
— Collecting bank – any bank, other than the remitting bank, involved in processing the collection.
— Presenting bank – the collecting bank making presentation to the drawee.
— Drawee – the party to whom presentation is made for payment, acceptance, or other specified consideration.

See also Section 2.8: ICC rules and standards

2.4.3 Workflow

Figure 7: Collections workflow



Source: David Meynell

2.4.4 In practice

As noted in the risk ladder diagram (see Figure 4), collections sit between open account and documentary credits. However, this does not absolve participants from undergoing necessary due diligence exercises on counterparties.

Risks still exist, with the most prevalent examples being:
- Credit – a buyer may not pay for the goods owing to insolvency or wilful default.
- Sovereign – introduction of laws and/or regulations that may prevent settlement.
- Transit – damage, loss, or theft during the movement of goods.
- Exchange – movements in exchange rates can easily create an unexpected profit or loss.

The exporter needs to have a certain amount of trust in the importer. As such, it is useful for the exporter to obtain an awareness of not only the financial standing of the importer, but also an insight into historical trading activities including payment delays and any instances of non-payment. The political stability of a country may additionally need to be considered as well as the choice of currency to settle the transaction. In all trading circumstances, there must be an understanding that one of the parties will take out necessary insurance cover for the transit of the goods.

2.5 Documentary credits

2.5.1 Definition

A documentary credit is a written undertaking given by a bank (issuing bank) to the seller (beneficiary) on the instruction of the buyer (applicant) to pay at sight or at a determinable future date up to a stated amount of money.

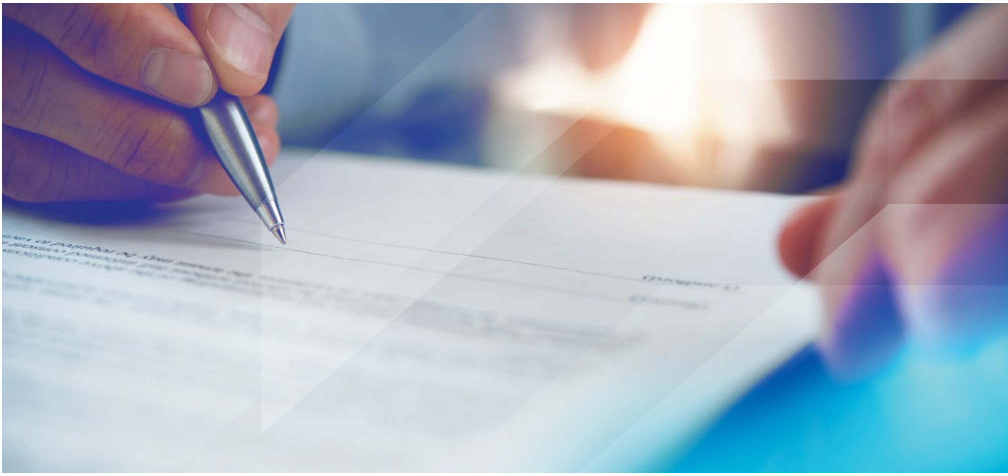
This undertaking is conditional upon the beneficiary's compliance with the terms and conditions stated in the credit issued in its favour and is satisfied by a 'complying presentation'.

As defined in Uniform Customs and Practice for Documentary Credits 600 (UCP 600) (see Section 2.8.1), a complying presentation is one that is in accordance with three considerations:
- The documents must comply with the terms and conditions of the documentary credit.
- If the documentary credit is stated to be subject to UCP 600, the documents must be in accordance with the applicable articles and sub-articles of UCP 600.
- The documents will be examined on the basis of international standard banking practice. It is important to note that 'international standard banking practice' is far wider than the principles enshrined in ISBP 745 (International Standard Banking Practice for the Examination of Documents under UCP 600), and includes practice related to all aspects of the documentary credit cycle.

2.5.2 Revocation and confirmation of credits

- Revocable. This is a credit which can be amended or cancelled by the issuing bank at any time, without prior warning or notification to the seller. It is very rarely used and not recommended. It no longer appears in the UCP rules.

- Irrevocable. In other words, it can be amended or cancelled only with the agreement of all parties thereto.



— Confirmed. As there are often two banks involved, the issuing bank and the advising bank, the buyer can ask for an irrevocable credit to be confirmed by the advising bank. If the advising bank agrees, the irrevocable credit becomes a confirmed irrevocable credit. Confirmation means a definite undertaking of the confirming bank, in addition to that of the issuing bank, to honour or negotiate a complying presentation. In essence, it is used when the issuing bank has a poor credit rating and/or is located in a country with a high country risk rating or is not considered a good risk by the beneficiary.

2.5.3 Key considerations

Sir Michael Kerr, in a landmark fraud judgment, described documentary credits as "[…] the lifeblood of international commerce".[10]

It is important to note that credits are separate from the underlying sale or other contract on which they may be based. In this respect, banks deal only with documents and not with the goods, services or performance to which the documents may relate. The documentary credit is a means to facilitate the settlement of international trade transactions. As such, it is not:

— A contract between buyer and seller.
— A guarantee that the seller will definitely receive payment.
— A guarantee that the buyer will receive the goods ordered.

2.5.4 Special types of documentary credit

- Red clause. This contains a special clause that authorises advance payment to the beneficiary in advance of shipment and before presentation of documents. Originally written in red ink, it specifies the amount to be advanced. The clause is often used for:
  - Provision of pre-export financing by the buyer to the seller;
  - Finance of the seller's purchase of raw material; and
  - Settlement of progressive payments during the manufacturing/installation/commission process.

  Under a secured or documentary red clause credit, advances are made against presentation of warehouse receipts or similar documents together with the beneficiaries undertaking to deliver the bill of lading and/or other documents required upon shipment.

  With an unsecured or clean red clause, the documents required do not include evidence of goods.

  Note that green clause credits are available which allow for advance payment but provide for storage in the name of the bank as security.

- Revolving. Here the credit contains a condition that the amount is reinstated without specific amendments and may revolve in relation to time (e.g. monthly) or in relation to value (by drawing).

Such a credit can be used to reduce administrative workload for repetitive purchases of the same kind of goods from the same supplier at regular intervals and allows for the value made available under the credit to be restored. It is popular with commodity trading houses, who value the flexibility of being able to draw down and repay the facility as needed.

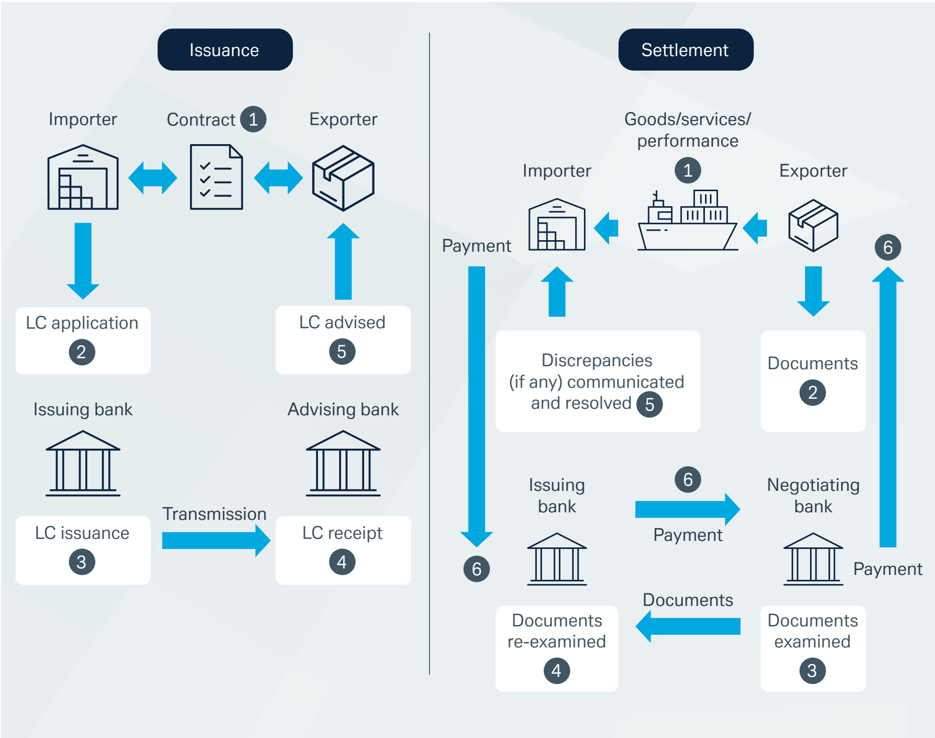
- Transferable. This may be made available in whole or in part to another beneficiary (second beneficiary) at the request of the beneficiary (first beneficiary). Such a credit must clearly state that it is transferable.
  - A bank is under no obligation to transfer a credit except to the extent and in the manner expressly consented to by that bank.
  - Unless otherwise agreed at the time of transfer, all charges (such as commissions, fees, costs or expenses) incurred in respect of a transfer must be paid by the first beneficiary.
  - A credit may be transferred in part to more than one second beneficiary provided partial drawings or shipments are allowed.
  - A transferred credit cannot be transferred at the request of a second beneficiary to any subsequent beneficiary.

- Back-to-back. This is where a trader, who acts as a middleman between the source supplier and the final buyer, uses such a credit. Two separate credits are issued:
  - The master credit in favour of the middleman; and
  - The back-to-back credit in favor of the source supplier.

The terms and conditions of the back-to-back credit are similar to the master credit except:
  - The credit amount, the unit price, the expiry date, the latest shipment date and the presentation period.

The primary source of repayment for the second issuing bank is from the proceeds received from the master credit.

Figure 8: Workflow of issuance and settlement



Source: TradeLC Advisory

2.5.5 Bank procedure

The issuance of a documentary credit is not always a simple formality or an act that can be completed in a standard or repetitive manner. It often requires attention to detail and, more importantly, to contain wording that is not ambiguous or subject to more than one interpretation.

An issuing bank has a responsibility to work with its clients to ensure that the issued documentary credit fully meets the needs of each applicant in terms of specifying the appropriate documentary requirements, that will enable the smooth importation of the goods, and provide a suitable level of assurance, as to the quality, standard and/or type of goods being purchased; while ensuring that the documentary credit is in accordance with the bank's internal policies and procedures and regulatory guidelines to which it must adhere.

Often, the policy of a bank will determine whether or not it may act in the capacity of an advising bank, second advising bank and/or confirming bank.

Bank policy will usually extend to matters such as the parties and countries involved in a transaction; the goods (i.e. a bank may have specific guidelines for transactions covering the shipment of drugs, armaments, security material and hardware, sale of software, etc.); the structure of a documentary credit with regard to its terms of settlement; and preferred reimbursement instructions (especially when confirmation is to be added).

Linked to some of these issues are regional and global sanctions (see Section 11.6) regulations that have been put in place by various governments and international organisations such as the United Nations (UN), European Union (EU), the Office of Foreign Asset Control (OFAC), etc. These can directly affect the ability of a bank to act in a particular role, including as an advising bank, second advising bank and/or confirming bank. A number of documentary credits are currently issued, advised or confirmed with wording to the effect that a bank will be unable to handle a presentation that may violate any conditions of these sanction regulations. In this respect, ICC has issued a recommendation paper concerning the use of such wording. At the time of writing this was being updated but no release date was available.[11]

2.6 Demand guarantees

2.6.1 Definition

Demand guarantees are invariably written for a stated amount and contain an expiry date or expiry event by which documents must be presented. A demand guarantee represents the guarantor's undertaking to pay a named beneficiary a sum of money upon presentation of specified documents conforming to the terms and conditions of the guarantee. The intent of a demand guarantee is to substitute the creditworthiness of the guarantor for that of its customer, the principal (as applicant of the guarantee).[12]

If documents comply, they will be paid; if not, they won't. If a demand is made under the guarantee and the principal feels the claim is unjust and/or the documents are untrue, the guarantor will still go ahead and pay if the demand complies (absent any court injunction stating otherwise), and the principal is expected to be able to recover any undue payment by litigating under the underlying contract.

2.6.2 Essential basics

Guarantees are often used to cover, and to mitigate, the many risks that can occur in finalising a contract between a buyer and seller. The benefits and attributes of a guarantee include:

- Independence from any underlying contract.
- Provision of security.
- Protection against non-performance of obligations, as opposed to a performance that results in non-payment (as is covered by instruments such as documentary credits i.e., shipment of goods and presentation of complying documents).
- Can cover financial or non-financial obligations.
- Can be used for cross-border or domestic transactions.
- They share many characteristics of documentary credits e.g., independent from the underlying contract, payment made only if certain conditions are fulfilled, compliance, typically issued by banks, may be subject to a set of international rules.

> "If documents comply, they will be paid; if not, they won't"

2.6.3 Key considerations

The rights of a beneficiary to claim under a demand guarantee are covered by the terms and conditions of the guarantee itself and not by reference to the underlying commercial contract. In order to demand payment, the beneficiary need only comply with the terms and conditions of the guarantee and has no need to provide any separate or additional documentation. The only exception to this would be if the guarantee were subject to Uniform Rules for Demand Guarantees (URDG) 758 (See Section 2.8.2). These rules require a separate statement of breach to be presented.

For a bank receiving a demand under a guarantee, this means that it only need be concerned with the terms and conditions of the guarantee and has no mandate or necessity to refer to any extraneous documentation such as the underlying commercial contract in order to determine compliance.

Certain pieces of information are consistently found in the text of a demand guarantee, regardless of the type that is issued.[13] These include, but are not limited to:
— Names and addresses of the contracting parties: applicant and beneficiary.
— Guarantee reference number.
— Guarantee currency and amount.
— Brief details of the underlying transaction.
— Details of the document(s) that is/are required to be presented in order to fulfil a demand for payment.
— Place for presentation of a demand and the required format for that demand.
— Expiry date or expiry event.
— Party responsible for fees and charges.
— Law and jurisdiction clauses.
— Rules, if required.

2.6.4 Types of demand guarantee

Tender/Bid

Tender/Bid guarantees are usually required in public tenders, accompanying the tender or bid as required in the conditions of tender, since major contracts in the public sector often require the additional security of a tender guarantee or bid bond.

Normally issued for 2–5% of the value of the tender and payable on demand, these guarantees ensure the bidder cannot withdraw from the tender process. Tender regulations normally require provision of a performance guarantee within a certain period (if the tenderer wins the contract).

These guarantees also typically include a fixed expiry date, though they may have provision for an extension, and cannot be called upon once contract awarded to another bidder.

Performance

A performance guarantee is an undertaking to deliver the performance promised in the contract. Contractual obligations include, inter-alia, the supply of goods, services or expertise and the completion of projects. In turn, the guarantee assures payment in the event that the counter-party does not fulfil contractual obligations, with the text set out under the guarantee relating to non-performance by the applicant. It usually covers a percentage of the contract value, normally around 5–10%.

Advance payment

An advance payment guarantee also covers non-performance and will reimburse money paid in advance – a percentage of the value of the contract to be paid by the purchaser to the vendor as a down payment or advance payment or deposit upon signing of the contract. The guaranteed amount is usually the same as the amount of the down payment – between 5-25% of contract value.

This type of guarantee often includes a reduction clause upon evidence of 'progressive' or ongoing successful completion of performance i.e. presentation of copy invoices indicating completion of a shipment, services or performance.

An advance payment guarantee does not normally become effective until advance (down) payment is received.

Warranty/Maintenance

A warranty/maintenance guarantee covers the maintenance or warranty period and guarantees recompense for defects etc. This type of guarantee is available throughout the maintenance or warranty period during which the applicant is responsible for the stated obligations. The percentage of contract value is much lower than for a performance guarantee – normally 5%.

A warranty/maintenance guarantee is often used for construction projects and can be valid for 24 months or more.

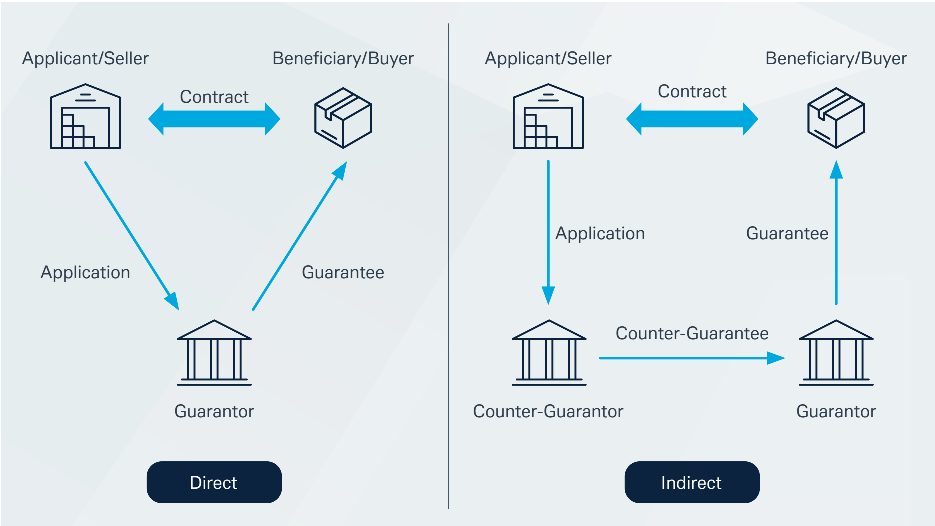
Retention

A retention guarantee allows payment by the purchaser for the full contract amount instead of withholding part of that amount as security for defects, normally around 10–15% of contract value. It is payable on first demand and ensures a refund of payments made – similar to a performance guarantee when a contractor fails to complete a project. This type of guarantee can be valid for 24 months or more.

Other forms of demand guarantee can include: customs, payment, re-insurance, and many others.

2.6.5 Workflow

Figure 9: Workflow of direct and indirect demand guarantees



Source: TradeLC Advisory

- **Direct guarantee.** The seller's bank provides the guarantee directly to the buyer with the seller giving the bank a counter indemnity. Due to local regulations or commercial practice, the buyer may insist that their own bank provides the guarantee.

- **Indirect guarantee.** The seller arranges for his bank to instruct the local bank to issue a guarantee to the buyer. The seller's bank provides a counter guarantee to the local bank for the issuance and the seller provides their counter indemnity in the usual way.

2.6.6 In practice

In view of the fact that the concept of confirmation does not exist with a demand guarantee, and in order to facilitate such transactions, it is normal practice that a counter-guarantee is issued by one bank, in favour of another bank, to support the issuance of a guarantee by that other bank.

To achieve the same result as confirmation, i.e. another (local or preferred) bank giving an undertaking to a beneficiary, a counter-guarantee is issued in favour of that bank as an inducement for them to issue its own guarantee in favour of the beneficiary.

Such a document may incorporate the required wording of the guarantee to be issued by the guarantor or issuing bank, or request issuance in the standard form of the guarantor for the type of guarantee that is to be issued.

2.7 Standby credits

2.7.1 Definition

Although very similar to demand guarantees, the functional variations are primarily in terminology and practice. The term 'standby letter of credit' originated in the US. They were introduced due to the legal statute that banks in the US were not allowed to issue guarantees. This prohibition has since been repealed with the introduction of URDG 758, and it is accepted that banks can now issue demand guarantees in addition to standby credits.

2.7.2 Essential basics

A standby credit represents a secondary obligation covering default only. In essence, this instrument provides security against non-performance as opposed to performance (as is the case with a normal documentary credit).

Standbys can be subject to a variety of rules in addition to, such as International Standby Practices (ISP) 98, UCP 600 or URDG 758. However, ISP98 is the most appropriate.[14]

ISP98 was introduced in 1998 due to the fact that many facets of UCP were inappropriate (if not incorrect) for the handling of standby credits.

2.7.3 Key considerations

As is the case with a guarantee, it is common for a beneficiary to provide an applicant with its preferred wording for the issuance of a standby, very often with an instruction that the wording cannot be amended in any way. Alternatively, an applicant and beneficiary will agree the text as part of their sale contract negotiations and deliver it to the bank for issuance on an "as is" basis.

Where an issuing bank maintains standard clauses for inclusion in its standby issuance, it is advisable to make these known or available to regular applicants of a standby, so that they do not agree a text that may not be possible to issue without some form of amendment, enhancement or internal legal approval.

Issuing banks will look for certainty in the text with regards to the expiry provision, the form and presentation of any demand and the application of any additional conditions. It is not unusual that the standby will include the wording for the demand that is to be presented, should it be necessary for the beneficiary to make a claim.

When documents such as a copy of a transport document and/or a copy of an (unpaid) invoice are to be presented together with a demand, the standby should specifically indicate the data requirements for such documents as they will not be examined in the same manner as they would under a documentary credit.

2.7.4 Types of standby

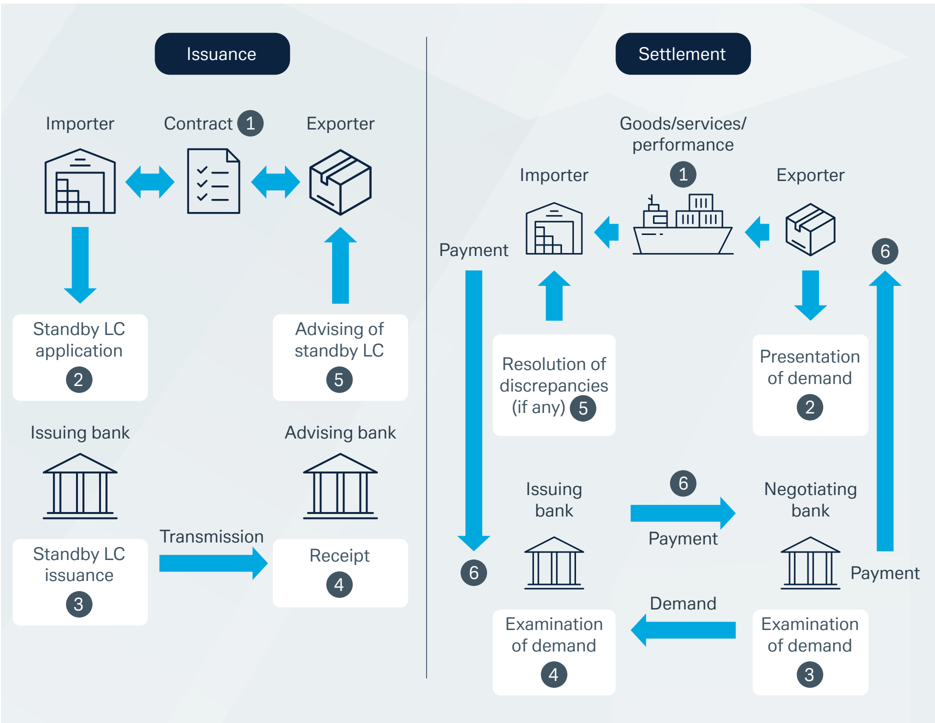
A wide variety of types exist but those more commonly seen in trade finance transactions are listed below.[15] Most of these will be familiar to those acquainted with demand guarantees.

- Performance – agreeing to undertake, deliver and/or complete contractual obligations.
- Advance payment – undertakes repayment of all or part of a percentage of the value of a contract that has been paid by the beneficiary to the applicant as a down payment, advance payment, or deposit, upon the signing of the contract.
- Bid or tender bond – ensures a bidder (applicant) cannot alter its tender proposal, or withdraw from the tender process, before the tender is awarded.
- Counter – a standby issued by one bank, in favour of another bank, to support the issuance of a standby, guarantee, documentary credit or other form of undertaking, by that other bank.

- Financial – supports a financial obligation to pay or repay.
- Insurance – reinforces applicant obligations in respect of insurance or re-insurance activity.
- Direct-pay – not necessarily related to a default and is likely to be the primary means of payment rather than secondary which is normally the case.
- Commercial – acts as a security for payment of goods or services not settled by a buyer under other arrangements i.e., via open account trading or documentary collection.

2.7.5 Workflow

Figure 10: Workflow of standby credits



Source: TradeLC Advisory

2.7.6 In practice

An applicant and beneficiary should be aware that banks will often maintain standard text or clauses that they are required to insert into a standby, from a regulatory or internal policy perspective, and should seek the intended issuing bank's concurrence on the wording before any formal agreement is reached on the final text.

ISP98 Model Forms, designed by a team of standby bankers and attorneys and aligned with ISP98 (ICC Publication No. 590), are the most widely used rules for standbys.[16]

The Institute of International Banking Law & Practice (Institute) began releasing the ISP98 Model Forms on 15 May 2012. They are intended to help standby users, including their regulators, to develop sound, workable, and appropriate texts for standbys in light of specialised standby practices and laws worldwide and can also be used for demand guarantees subject to ISP98.

2.8 ICC Rules and standards

As explained in Section 1.4.2, the ICC has become a leading global rule-making body for the banking industry, not only producing universally accepted rules and guidelines for international banking practice, but also providing leading edge research and analysis.

In trade finance, it is vital to gain an understanding of existing and developing rules and practice and then to implement appropriate procedures and guidelines in order to ensure more certainty and reduce lending risk.

2.8.1 UCP 600, URR 725, ISBP 745, eUCP

The most widely used set of ICC rules, Uniform Customs and Practice for Documentary Credits (UCP), was introduced in 1933 to alleviate the disparity between national and regional rules on letter of credit practice. Since then, there have been six revisions, the current version known as UCP 600.

Justification for the existence of UCP 600 revolves around four essential tenets:

- Harmonisation as opposed to differing customs.
- Common understanding of terms and intentions.
- The ability to rely on a set of contractual rules that would establish uniformity in practice, so that practitioners would not have to cope with a plethora of often conflicting national regulations.
- A platform in which to conduct business between countries with widely divergent economic and judicial systems.

The rules are supplemented by:

- ICC Uniform Rules for Bank-to-Bank Reimbursements under Documentary Credits (URR 725).
- International Standard Banking Practice for the Examination of Documents under UCP 600 (ISBP publication No. 745).
- ICC Supplement to the Uniform Customs and Practice for Documentary Credits for Electronic Presentation (eUCP Version 2.0).

2.8.2 URDG 758

The first release of an ICC publication addressing rules for demand guarantees was in 1992 with URDG (Uniform Rules for Demand Guarantees) ICC Publication No. 458.

The rules achieved relative success but never attained global adoption, partially due to the article covering demands for payment, which was seen by many in the trade community as not in line with practice.

In 2010, a revision of the rules was introduced, URDG 758. This revision provided an opportunity to bring all comments, experiences, criticisms and feedback regarding URDG 458 and the practice of demand guarantees into a new revised and comprehensive set of rules. This version is more exact and avoids the possibility of misinterpretation, which existed with URDG 458. In addition, it is made more transparent and readable by following the logical sequence of a guarantee lifecycle.

2.8.3 ISP98

The International Standby Practices (ISP98) became effective on 1 January 1999. It is considered to be more suitable for standby credits than UCP 600, which focuses primarily on commercial letters of credit and contains a number of rules that are not suitable or applicable for typical standbys.

ISP98 contains the following sections: General provisions; Obligations; Presentation; Examination; Notice, Preclusion and Disposition of documents; Transfer, Assignment and transfer by operation of law; Cancellation; reimbursement obligations; Timing; Syndication and participation.

> "UCP was introduced in 1933 to alleviate the disparity between national and regional rules on LC practice"

2.8.4 URC 522

The Uniform Rules for Collections (URC) were originally introduced in January 1979, under ICC Publication No. 322. The latest revision, Publication No. 522, came into effect on 1 January 1996.

The purpose of the URC is to set a standard under which all parties to a documentary collection are aware of their roles and responsibilities. The rules are applicable when indicated in the collection instruction.

In July 2019, the ICC released a Supplement for Electronic Presentation (eURC) Version 1.0 (refer Section 10.8.1).

2.8.4 URF 800

The Uniform Rules for Forfaiting entered into effect on 1 January 2013 and sets out clear procedures along with model agreements for both corporates and financial institutions engaged in monetising receivables using forfaiting. URF 800 contains model agreements.[17]

2.8.5 URBPO

The Uniform Rules for Bank Payment Obligations demonstrates ICC's support for payment method using electronic data matching.[18] They were adopted in April 2013. The rules define the BPO as "an irrevocable and independent undertaking of an obligor bank to pay or to incur a deferred payment obligation and pay at maturity a specified amount to a recipient bank in accordance with the conditions specified in an established baseline".

2.9 Dispute handling and arbitration

The ICC rules remain the most successful set of private rules for trade ever developed. However, no rules can protect you from bad practice, poor application of the rules, mishandling, or dishonest parties.

Problems and misunderstandings do occur which can give rise to a dispute. In such circumstances, it is always hoped that the parties can reach a mutual understanding and agreeable conclusion. The worst-case scenario is that the dispute will end up in a court of law.

However, there does exist an intermediate stage, one of arbitration, whereby the parties concerned may agree to an independent assessment of the issue under dispute.

Whilst there are a number of formal arbitration services, including the ICC International Court of Arbitration, a less formal alternative exists in the form of a rapid, cost-effective, document-based procedure known as the ICC Rules for Documentary Instruments Dispute Resolution Expertise (DOCDEX).

The purpose of DOCDEX is to provide parties with a specific dispute resolution procedure that leads to an independent, impartial and prompt expert decision settling disputes involving trade finance instruments, undertakings or agreements.[19]

DOCDEX was first launched in 1997 as an alternative dispute resolution system for parties using ICC rules relating to letter of credit transactions. In 2002, the scope of the DOCDEX rules was broadened to also encompass cases relating to URC and URDG.

In November 2014, the Banking Commission approved a new set of DOCDEX rules that additionally caters for transactions subject to ISP98 and also trade finance transactions that are not subject to ICC rules.

The process is monitored and handled by the ICC International Centre for Expertise.

3 Supply chain finance

3.1 Definition

Supply chain financing is a generic term that typically covers the financing of open account transactions along the supply chain from development to distribution. Enabling accessible financing along the entire physical supply chain ensures exponential benefits to all entities involved in a trade transaction.

Figure 11: Benefits of supply chain finance

Banks

- Learn more about the business of its clients thereby enabling enhanced data integration, advanced financing solutions, and automated processing, particularly in a digital environment
- Reduced operational costs
- Shorter transaction processing times and completion

Buyers and suppliers

- More accessible risk mitigation and improved working capital flows
- Automated processes including reconciliation, settlement, forecasting and monitoring
- Lower transaction cost enabling reduced transaction pricing

Source: TradeLC Advisory

Closer matching of the physical, financial and information supply chains will continue to fuel the development of innovative financing solutions. Integration of data and information is, and will be, the basis of future trade solutions.

Traditional trade finance has provided enormous benefits to traders but the problem has been that many of these solutions are predicated upon a paper environment. Dematerialisation into a digital format has proved to be the way forward. In modern times, efficient and speedy global modes of transport, combined with containerisation, have transformed the physical supply chain.

However, due to the intrinsic need for paper, the financial supply chain has not kept pace with physical supply chains. The major challenge is to transparently, digitally and efficiently share information across the numerous involved entities in a trade transaction including suppliers, buyers, logistics, financial institutions, insurers, etc.

Figure 12: What financial intermediaries provide buyers and sellers

- Technology-based, automated, digital, paperless, online solutions to enable lower financing and operating costs, improving timeliness and improving efficiency and effectiveness
- Assistance in optimising working capital
- Financing which includes, but is not limited to, pre-shipment, warehouse, post-shipment and receivables purchase
- Additional access points across the supply chain allowing improved and increased financing opportunities
- Support multiple entities, in particular numerous suppliers. Modern supply chains can be very intricate and complex
- Risk mitigation as has been available for more traditional means of settlement and finance

Source: TradeLC Advisory

3.2 Physical and financial supply chains

Globalisation and the proliferation of technology have transformed business as we know it. But digitalisation (see Section 10) is a priority for one industry in particular: trade finance. Greater use of technology could bring numerous benefits to the industry with the increased transparency a digital process brings and even help plug the trade finance financing gap, estimated at US$1.5trn by the Asian Development Bank.[20]

The integration of physical, financial and information supply chains is stimulating ever more innovative financing solutions and such coordination of data and information will be the basis for future trade finance offerings as digital information becomes more readily attainable, convenient and available. The key to this success has been, and will continue to be, common standards for the sharing of data and information. Each party involved in a trade transaction needs to have access to data easily, cheaply and quickly.

3.3 Moving towards standardisation

A relatively modern development, supply chain finance has often suffered from differing interpretations across industries and geographies. This has prompted a number of attempts in recent years to provide a common framework for understanding. The Euro Banking Association (EBA), in 2013, defined supply chain finance as, "The use of financial instruments, practices and technologies to optimise the management of the working capital and liquidity tied up in supply chain processes for collaborating business partners. SCF is largely 'event-driven'. Each intervention (finance, risk mitigation or payment) in the financial supply chain is driven by an event in the physical supply chain. The development of advanced technologies to track and control events in the physical supply chain creates opportunities to automate the initiation of SCF interventions."[21]

More recently, in 2016, Bankers Association for Finance and Trade (BAFT), EBA, Factors Chain International (FCI), ICC and the International Trade and Forfaiting Association (ITFA) jointly produced a paper under the auspices of the Global Supply Chain Finance Forum (GSCFF) entitled "Standard Definitions for Techniques of Supply Chain Finance"[22].

As mentioned on the ICC and GSCFF websites, the intent of this initiative is to help create a consistent and common understanding in respect of supply chain finance starting from the definition of terminology, to be followed by advocacy in support of global adoption of the standard definitions.

Definitions include:
— Receivables discounting
— Forfaiting
— Factoring
— Factoring variations
— Payables finance
— Loan or advance against receivables
— Distributor finance
— Loan or advance against inventory
— Pre-shipment finance
— Bank payment obligation

3.4 Receivables discounting

Sellers of goods and services sell individual or multiple receivables (represented by outstanding invoices) to a finance provider at a discount (synonyms include Receivables Finance, Receivables Purchase, Invoice Discounting).[23]

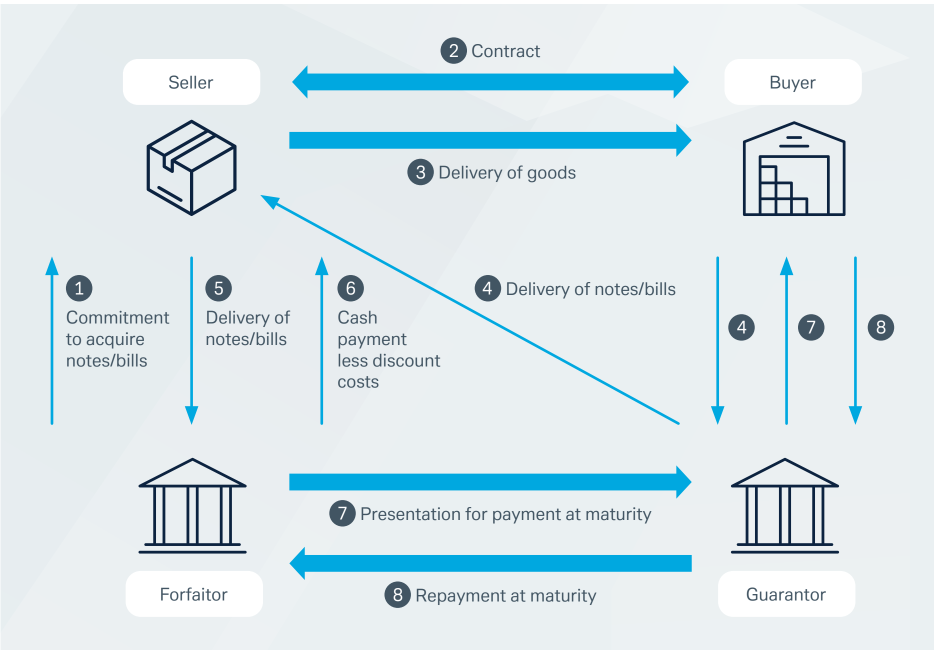
In June 2019, the GSCFF released a new guidance document, Market Practices in Supply Chain Finance: Receivables Discounting Technique, which focuses on receivables discounting a technique and form of receivables purchase; flexibly applied in which sellers of goods and services sell individual or multiple receivables (represented by outstanding invoices) to a finance provider at a discount.[24]

3.5 Forfaiting

The without recourse purchase of future payment obligations represented by financial instruments or payment obligations (normally in negotiable or transferable form), at a discount or at face value in return for a financing charge (synonyms include without recourse financing, discounting of promissory notes/bills of exchange).[25]

The term "forfait" comes from the French expression to "relinquish a right". In the context of forfaiting, the exporter will relinquish their rights to receive the proceeds on the due date in return for an immediate payment, at an agreed interest rate for the discount, and thereby pass all risks and responsibility for collecting the debt to the forfaiter.

Figure 13: Summary of forfaiting transactional flow



Source: www.tradefinance.training

Forfaiting is usually experienced in transactions with tenors of more than 180 days and up to 10 years. The average is in the region of three to five years. Given the periods involved, it can be seen that forfaiting is used in large contracts and projects, long-term repayment plans to assist importers and high value transactions. Debt should be evidenced by a legally enforceable and transferable payment obligation such as a bill of exchange, promissory note, or a letter of credit.

Further support and information on forfaiting is available from ITFA at www.itfa.org

> "Each party involved in at trade transaction needs to have access to data easily"

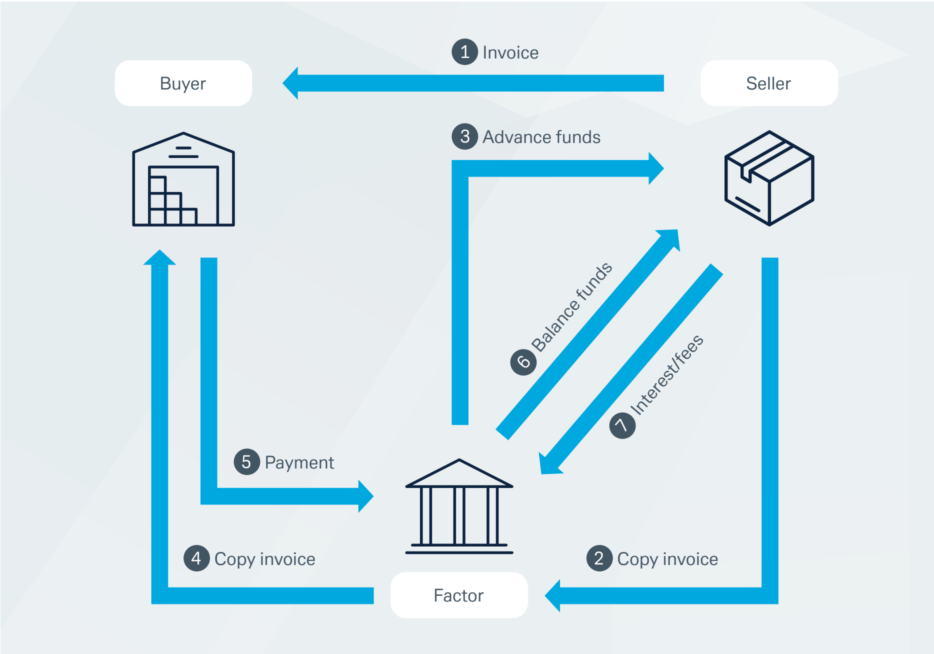
3.6 Factoring

Sellers of goods and services sell their receivables (represented by outstanding invoices) at a discount to a finance provider (commonly known as the 'factor'). A key differentiator of factoring is that typically the finance provider becomes responsible for managing the debtor portfolio and collecting the payment of the underlying receivables (synonyms include receivables finance, invoice discounting, debtor finance).[26]

The factor takes on the credit control and debt collection, and advances funds to the seller prior to maturity. The seller informs the buyer that the invoice has been transferred to a factor and sends copies of invoices to the factor (although the factor may issue the invoices on behalf of the seller). This is primarily without recourse with up to 90% of invoice value advanced. 'Two-factor international factoring' is when the seller's domestic factor uses a local factor in the country of the buyer.

Further support and information on factoring is available from FCI at www.fci.nl

Figure 14: Summary of factoring transactional flow



Source: TradeLC Advisory

3.7 Payables finance

A buyer-led programme within which sellers in the buyer's supply chain are able to access finance by means of receivables purchase. The technique provides a seller with the option of receiving the discounted value of receivables prior to the actual due date and typically at a financing cost aligned with the credit risk of the buyer.[27]

For further information on payables finance, together with examples of use cases, see Deutsche Bank's *Payables Finance: A guide to working capital optimisation*.[28]

3.8 Loan or advance against receivables

Financing made available to a party involved in a supply chain on the expectation of repayment from funds generated from current or future trade receivables (synonyms include receivables lending, receivables finance, trade receivable loans).[29]

3.9 Distributor finance

Financing for a distributor of a large manufacturer to cover the holding of goods for re-sale and to bridge the liquidity gap until the receipt of funds from receivables following the sale of goods to a retailer or end-customer (synonyms include buyer finance, dealer finance, channel finance).[30]

3.10 Loan or advance against inventory

Financing provided to a buyer or seller involved in a supply chain for the holding or warehousing of goods (either pre-sold, un-sold, or hedged) and over which the finance provider usually takes a security interest or assignment of rights and exercises a measure of control (synonyms include inventory finance, warehouse finance, financing against warehouse receipts).[31]

3.11 Pre-shipment finance

A loan provided by a finance provider to a seller of goods and/or services for the sourcing, manufacture or conversion of raw materials or semi-finished goods into finished goods and/or services, which are then delivered to a buyer (synonyms include purchase order finance, packing credit finance).[32]

It can often be the case that pre-shipment financing is required by the seller in order for goods to be produced. This is particularly relevant for goods that have long production or delivery periods. It can also be a requirement for large value transactions wherein the production costs may be very high. Pre-financing can be utilised to establish new or enhanced production facilities, acquire raw materials from suppliers or even to meet running costs to complete any new contracts.

3.12 Trade finance securitisation

Securitising trade receivables allows companies to raise capital by selling, on a revolving basis, a selection of receivables to a legally separate, bankruptcy-remote special purpose vehicle (SPV). Trade finance securitisations are typically baskets of assets, such as supply chain finance, and documentary credits with an average life of 180 days, and many being less than 90. For this reason, assets have to be replenished on a regular basis, which entails considerable administrative commitment.

Securitisation of trade finance has been gradually gaining traction with institutional investors because of the asset class's low default rates, diversity and granularity, which provides additional sources of trade finance capital. Deutsche Bank's TRAFIN 2018-1 securitisation, refinancing TRAFIN 2015-1 is an example of such a structure in action.[33]

4 Structured trade and commodity finance

Commodity collaterised trade finance structures are used in both emerging markets and those within the OECD. They rely on self-liquidating cash flows generated from the trading of commodities to support the finance structure and mitigate associated credit and transfer risks. Lender syndicates sometimes comprise several financial institutions, each taking a "ticket" of the overall loan package.

4.1 Pre-export finance/prepayment finance (PXF/PPF)

This is where performance-based lending is structured around an export contract between an exporter (the seller) and an off-taker (the buyer) and the proceeds of the exports are typically used to enhance the repayment of the loan. In addition, the credit risk of the borrower can be monitored through the performance by the borrower under the export contract.[34]

4.1.1 PXF

A PXF structure refers to a loan made to a producer (exporter) of commodities based on the value (price and quantity) of commodities to be sold and delivered to an eligible off-taker. When the exporter ships/delivers the goods, the eligible off-taker then pays to an off-shore collection account pledged to the security agent on behalf of the lenders. The proceeds of the exports can be applied for the debt service under the loan agreement. The lender has full recourse to the exporter, who is at

> "Commodity collaterised trade finance structures...rely on self-liquidating cash flows generated from the trading of commodities"

all times legally obliged to pay back the loan even in case the eligible off-taker defaults. There are structural enhancements (security) for the lender in the form of pledge(s) over the export contracts, pledged receivables arising from such contracts and, in some cases a pledge over commodities exported.

The ultimate credit risk remains at all times with the exporter. If the value of the export contracts pledged (after applying the agreed cover ratio) falls below the drawn amount the exporter is typically obliged to top up the collateral by delivering additional volumes under the export contract or to pledge cash to the security agent in order to secured the repayment of the loan.

PXF facilities are typically term loans with a pre-determined amortisation schedule. The exporter must ensure the size and timing of their shipments are sufficient to meet the debt service requirements. There is no prepayment or acceleration of payments if the exporter receives a payment from the off-taker that is greater than the scheduled amortised loan payment.

4.1.2 PPF

Under a PPF facility the loan is provided to the off-taker under an export contract. The off-taker advances the loan to the exporter to pre-pay (part of) a pre-agreed export agreement for the delivery of a certain amount of goods. The exporter then ships/delivers the commodity to the off-taker and the loan is discharged by payment from the off-taker [through the collection account] for the delivery.

A PPF facility is typically provided with limited recourse to the off-taker and with full recourse to the exporter. The off-taker is only liable to repay the loan to the extent of its limited recourse portion in case the exporter does not perform under the export agreement, i.e. fails to deliver the goods. If and when the exporter delivers, the off-taker is liable to pay for such deliveries. If the exporter delivers and the off-taker does not pay for such delivery, the lender(s) have a claim for payment of that specific shipment to the off-taker and could step-in by virtue of the pledged export agreements to claim back the delivered commodities and attempt to resell the goods to another off-taker. The limited recourse to the off-taker varies, typically between 10% and 25% of the loan amount, therefore, the lender has a performance risk on the exporter's capacity to deliver the goods and payment risk on the off-taker's capacity to pay for the products delivered.

The risk exposure for the lender is towards the exporter but the borrower of record in the lender's books is the off-taker.

PPF loans can take the form of term loans with an amortisation schedule but sometimes the amortisation of the loans follows the value of delivered commodities, i.e. when the value of the deliveries is higher than an expected reference price (the "price deck") the loan will get repaid earlier than anticipated and when the value is lower the repayment will take longer.

4.2 Borrowing base finance (BBF)

BBF financing refers to credit facilities extended to a processor of, or a trader in commodities to finance the purchase, processing, storage, logistics and the subsequent sale to end buyers of identified commodities or an identified commodity flow. Repayment is secured by a combination of pledged inventory and receivables, leading to self-liquidating cash flows generated from the sale of commodities to acceptable counterparties. Sales proceeds may be directed to be received on a collection account that is pledged to the security agent. The borrowing base amount is calculated based on an agreed reference price (usually the lower of cost price or market value of the pledged commodities) and advance rate and is re-determined on a regular and frequent basis. On a case-by-case basis, fixed assets may also be taken into account as security, and a portion of those assets may be included in the borrowing base.

A BBF facility is typically a revolving credit facility where the value of the loan is determined by the lower of i) the value of the borrowing base and ii) the facility amount. The value of the borrowing base is the aggregate of the value of the eligible borrowing base assets (inventory, receivables, cash, etc.) multiplied by the relevant advance rates. The facility is fully secured by the very same borrowing base assets. The facility agreement will require the client to periodically (typically weekly, bi-monthly or monthly) submit borrowing base reports to adjust the borrowing base amount using

the updated volumes and market prices for such assets as of the time of determination. During the life of the facility the client can draw down only the lower of the facility amount or the borrowing base amount.

For example, if a facility is created with a US$500m facility amount and the value of the borrowing base is US$300m, then the client can draw down only up to US$300m. If the borrowing base is re-valued at US$350m, then the client can draw down up to US$350m. The client can never draw down more than US$500m, even if the borrowing base is worth more, since the facility amount is limited to US$500m.

If the value of the borrowing base falls below the outstanding loan amounts the borrower has the obligation to remedy this shortfall by delivering additional eligible assets to the borrowing base, to pledge additional cash to the Security Agent or to repay (part of) the loans outstanding within the relevant remedy period (usually a few business days).

A BBF can be provided on a committed or an uncommitted basis. Tenors vary from one year to four or sometimes five years. BBFs with a tenor of more than one year may (ideally) include a run-off period of six to 12 months before the end of the final maturity date when the available facility limit will be reduced gradually to zero. This supports an orderly wind down of the BBF in case it cannot be refinanced or repaid in time.

The credit risk lies with the borrower(s) and where relevant the guarantors under the BBF and is secured by the collateral package of the borrowing base.

4.3 Reserve-based lending (RBL)

RBL is specifically dedicated to oil and natural gas exploration and production companies for the purpose of financing development capex and/or acquisitions.

RBL typically provides for up to seven-year senior secured revolving borrowing base facilities collateralised by an approved basket of upstream oil and natural gas assets/reserves. The borrowing base amount is conservatively derived from the net present value of the cash flow generated by the assets divided by coverage ratios and is re-determined on a regular basis to reflect the assets' performance and the evolving macroeconomic environment. The projected cash flows underpinning the borrowing base amount are derived using an agreed banking case for the underlying secured assets based on independent reserves reports.

The RBL's borrowing base structure is especially designed to accompany the corporate growth while typically providing the lenders control of the cash flow and a strong security package (including sales proceeds paid in pledged accounts, share pledges and/or asset level security) and covenants (including cash waterfall, regular re-determination of the borrowing base, reserves tail).

For an example of RBL in action in the North Sea, see the *flow* articles, *Sunset to Sunrise*[35] and *After the Perfect Storm*.[36]

4.4 Warehouse financing

Financing is provided to a manufacturer against the security of warehouse receipts representing the underlying commodity. Warehouse financing is a form of inventory financing arrangement in which a manufacturer, commodity broker or producer assigns its goods as collateral to be controlled by an agent (designated warehouse) on behalf of the lending institution.

Such arrangements generally involve the warehousing of non-perishable goods or commodities so that repayment can be tied to the utilisation or sale of the goods. In other words, the commodity itself is used as collateral for the financing resulting in an increase in working capital for the manufacturer, commodity broker or producer. Repayment can be structured so that it is made against the actual usage of the raw material.

Events such as the 2014 warehouse receipts fraud involving the multiple pledging of the same collateral to raise financing in the Eastern Chinese ports of Qingdao and Penglai have highlighted the potential for problems with this type of financing if it is not closely monitored or controlled.[37] In December 2018, Reuters reported that the Qingdao Intermediate People's Court had found Dezheng Resources guilty on five counts of financial crimes spanning the 18-month period from November 2012 to May 2014.[38]

As with any type of financing, due diligence procedures should always be carefully adhered to including the choice of warehouse.

> "Due diligence procedures should always be carefully adhered to"

5

Structured trade and export finance, and export credit insurance

Export credit insurance is an alternative method of assuring payment for goods, services or performance by mitigating risk and payment uncertainty. Export credit is the credit that a seller offers to a buyer in a sales contract.

Such insurance protects against the risk of non-payment, and is provided by the private sector (brokers work with sellers seeking insurance to get the right policy from the underwriter) or governmental bodies. Policies can be assigned to banks as security. The insurance itself is generally divided into:
— Commercial risks (e.g. buyer insolvency, bankruptcy, liquidation, etc.)
— Political risks (e.g. war, civil commotion, terrorism, etc.)

The Berne Union is an international not-for profit association, representing the global export credit and investment insurance industry via its 84 members from 73 countries.[39] It is a useful source of information about the export credit and insurance industry whose members provide US$2.5trn annual risk capital, supporting 13% of cross-border trade, and have paid US$50bn in claims since 2008.

Members report data on their export credit and investment business twice a year and this is all available on the Berne Union website on a non-commercial basis as a barometer of market activity.[40]

5.1 Export Credit Agencies (ECAs)

ECAs are public agencies and/or departments that provide government-backed loans, guarantees and insurance to exporters from their home country that seek to sell equipment and services overseas. They have their origins in post-war Europe and over time have developed from straightforward government bodies with mandates to deliver public policy on supporting infrastructure and domestic exports, to agencies more generally promoting the national interest.

They came into their own during the 2008 Global Financial Crisis, stepping in with increased trade finance support when their domestic economies were struggling and commercial bank liquidity was severely challenged. Using ECAs as a tool to export their way out of recession, governments also developed their own lending programs to provide attractive finance to their exporters' clients when the commercial banks couldn't.

ECA policies are broadly consistent across different countries, with the OECD Arrangement on Export Finance (the "Consensus") setting guidelines on the support that ECAs can provide, thereby limiting governmental subsidies to their exporters. However ECA support still can vary considerably between countries, with governments promoting their own national interests, such as whether an ECA loan is combined with a grant or loan – and where that is permitted to come from. Other issues that have to be navigated are whether an emerging economy country has reached its IMF borrowing limit, after which point the funding has to be provided by aid and not commercial lending.

5.1.1 OECD ECAs

As the OECD puts it, "governments provide officially supported export credits through ECAs in support of national exporters competing for overseas sales. Such support can take the form either of 'official financing support' such as direct credits to foreign buyers, refinancing or interest rate support, or of 'pure cover support' such as export credits insurance or guarantee cover for credits provided by private financial institutions. ECAs can be government institutions or private companies operating on behalf of governments."[41]

While the OECD is also a forum for maintaining, developing and monitoring the financial disciplines for export credits (enshrined in the OECD's 'Arrangement on Officially Supported Export Credits), its participants comprising Australia, Canada, the European Union (EU), Japan, South Korea, New Zealand, Norway, Switzerland, Turkey and the US do not include China – one of the most active ECAs today. The full list of OECD ECAs is available from the OECD website.[42]

5.1.2 China's export financing infrastructure

This comprises the three state-owned institutions:
- China Development Bank, providing medium- to long-term debt funding that serves China's major long-term economic and social development strategies (according to its website[43]).
- Sinosure, providing export credit insurance to support Chinese exporters, and insuring overseas investments by Chinese enterprises.
- The Export-Import Bank of China, mandated to "implement state policies in industry, foreign trade, finance and foreign affairs."[44]

Examples of Chinese ECA and development bank activity can be seen all along China's Belt and Road Initiative (BRI) routes. More information about the BRI can be found in Deutsche Bank's white paper, *China's Belt and Road Initiative, A guide to market participation*.[45]

5.2 Export finance

With political uncertainty having stepped up more intensely than in the previous decade, businesses have delayed investment decisions, are taking longer to conduct project risk and feasibility studies and major financing deals are taking longer. However export finance is an impactful tool for public sector entities, government ministries and borrowers from emerging markets – deploying this to build infrastructure, improve economic growth and bolster employment.

For this reason, financing through ECAs is more relevant than ever, providing security and stability. As Werner Schmidt, Deutsche Bank's Global Head of Structured Trade and Export Finance observes, "The financial crisis had already shown that export finance was one of the few long-term instruments also available in that volatile situation. The largest export financing deals were actually made during that time. And the export credit insurance companies also supported considerably higher volumes than in 'normal' times."[46]

He adds that export finance is an area of business involving a high level of customer proximity that is very transparent and "banks are keen to engage in". When there is a lot of liquidity in the financial markets, one tends to find that other financing products such as capital markets solutions, bonds and classic loans all compete with export finance.

Working with ECAs, global banks access ECA-backed schemes and help exporters expand their financing operations. They do this either on a sole lender/agent basis or within a syndicate of several banks. Historically, the larger syndicated loan deals have concentrated on core economic sectors, such as transportation and energy.

Another way they extend their activities is with securitisation guarantees and structures that enable deals to be refinanced at lower rates on the capital markets.

5.3 Export credit insurance

The role of commercially provided export credit insurance is to insure against the risk of non-payment. This comprises:

- Short-term cover or credit terms provided by the seller of up to 180 days; and
- Long-term cover where risks extend for more than 180 days.

Banks' use of insurance is recognised as an eligible credit risk mitigation instrument for regulatory capital relief. Article 203 of the Capital Requirements Regulations (CRR) does state that "Institutions may use guarantees as eligible unfunded credit protection".[47] Types of policies include:

- Whole turnover policies covering all sales on credit terms. These can be written to cover both domestic and export sales.
- Specific or key customer policies covering the default risk of one customer or of a small number of key customers where the seller/exporter has the largest part of its turnover.
- Excess or catastrophe policies where for a lower premium the seller agrees to cover 100% of the losses up to an agreed threshold.

Risks covered by such policies depend on what is actually agreed and on the insurer's view of economic and political stability in the areas the cover is needed for. The main political or country risks, which may have differing degrees of cover available in the policies are:

- Confiscation or expropriation of machinery, goods and factories;
- Violence caused by civil unrest, coup d'état or local wars
- Inability to convert local currency receipts into hard currency
- Embargoes on imports and cancellations of import licences
- Government intervention that frustrates the contract
- Unfair calling of a performance or similar guarantee
- Kidnap of expatriate staff.

Private sector provision is usually sourced by a broker, who will work with a variety of underwriters and advise the purchaser of insurance on the right policy for their needs.

6 Development finance

6.1 Role of multilateral development banks (MDBs)

MDBs are supranational institutions set up by sovereign states as their shareholders. They have the common task of fostering economic and social progress in developing countries by financing projects, supporting investment and generating capital for the benefit of all global citizens.[48]

As explained in the ICC Banking Commission's Report, *Global Trade – Securing Future Growth 2018*, MDBs "are closely related to ECAs in their role of bringing net extra capacity to market at times of crisis and with non-commercial objectives".[49]

Most MDB programmes provide guarantees to reduce the perceived risk of conducting trade operations in developing countries – they close the confidence gap between perceived and actual risk. Importantly, they cater for the small and medium-sized enterprise (SME) sector, whose

> "Most MDB programmes close the confidence gap between the perceived and actual risk"

individual applications for trade finance face routine rejection to the tune of 50%.[50] However, the ICC report notes that only 7% of MDB requests are declined and for this reason, SMEs represented more than 75% of the end beneficiaries in MDB trade finance programmes across 2017.

"MDB programmes do not take the payment risk of the local firm applying for a trade finance instrument. But an MDB can influence the risk appetite of the local issuing banks for SME banking, by providing lines of credit dedicated to this business segment," ICC commented.

6.2 Trade finance/facilitation programmes

Six MDBs work together under a G7 initiative[51]:
— African Development Bank (AfDB)
— Asian Development Bank (ADB)
— European Bank for Reconstruction and Development (EBRD)
— European Investment Bank (EIB)
— Inter-American Development Bank (IDB)
— World Bank Group

Others offer specialised solutions such as Islamic finance, soft commodity facilities, and equity support. The following comprise the main programmes in place:

— AfDB. The overarching objective of the AfDB is to spur sustainable economic development and social progress in its regional member countries, thus helping to reduce poverty in these regions.[52]

— ADB. ADB's Trade Finance Program (TFP) fills market gaps for trade finance by providing guarantees and loans to banks to support trade.[53] A substantial portion of the TFP's portfolio supports SMEs, and many transactions occur either intra-regionally or between the ADB's developing member countries. The programme supports a wide range of transactions, from commodities and capital goods to medical supplies and consumer goods. In November 2017, Deutsche Bank AG teamed up with the ADB to provide more than US$200m a year in financing to SMEs across developing Asia.[54]

— EBRD. The EBRD Trade Facilitation Programme aims to promote foreign trade to, from and amongst EBRD countries and offers a range of products to facilitate this trade.[55]

— EIB. The EIB provides finance and expertise for EU projects supporting innovation, SMEs, infrastructure and climate action.[56]

— IDB. The IDB's current focus areas include three development challenges – social inclusion and inequality, productivity and innovation, and economic integration – and three cross-cutting issues – gender equality and diversity, climate change and environmental sustainability; and institutional capacity and the rule of law.[57]

— World Bank Group. This includes the International Finance Corporation (IFC) and has set two goals for the world to achieve by 2030: end extreme poverty by decreasing the percentage of people living on less than US$1.90 a day to no more than 3% and promote shared prosperity by fostering the income growth of the bottom 40% for every country.[58]

Although not part of this G7 initiative another important participant is the International Islamic Trade Finance Corporation, an autonomous entity within the Islamic Development Bank Group created "with the purpose of advance trade to improve the economic condition and livelihood of people across the Islamic world.[59]

7 Other forms of trade finance

7.1 Islamic finance

There have been three key attempts to establish modern Islamic financial institutions over the past century.[60] Currently, the main provider is the Islamic Development Bank that hosts an autonomous entity within its structure in the form of the International Islamic Trade Finance Corporation set up to "improve the economic condition and livelihood of people across the Islamic world".[61]

The key difference between conventional and Islamic financing is that, while the time value of money is not permissible in a pure 'cash now for more cash later' transaction, it is allowed if the financing is an integral part of a real trade in goods.

So while the organisation is not allowed to lend US$100,000 in cash now in return for US$110,000 payable in a year, it is allowed to sell an asset with a market price of US$100,000 for US$110,000 payable in a year. For this reason, Islamic finance is often described as an asset-based financing system. The key Shariah contracts used for trade financing are *murabaha* and *salam*.

With *murabaha*, it is the buyer that needs financing to acquire the goods; in *salam*, it is the seller that needs working capital to buy items such as seed in order to grow a crop. *Murabaha* is also referred to as cost-plus sale; sale against a deferred price; instalment sale; or sale with profit.

Since it is a sale-related financing, *Murabaha* is considered ideal for trade finance or working capital requirements and is used extensively with documentary credits, documentary collections and open account purchases, among others.

7.2 Countertrade

There are five main types of countertrade transactions:

7.2.1 Countertrade

Popular in some emerging economies, countertrade is a reciprocal form of international trade where goods or services are paid for in whole, or in part with other goods and services, rather than money. It is often used when foreign currency is in short supply or when a country applies foreign exchange controls.

7.2.2 Barter

The buyer and seller agree on the direct exchange of goods in one contract, i.e., money is generally not involved. Only residual amounts, which may be left after netting imports and exports, are actually paid in currency.

7.2.3 Counter-purchase

This involves two separate contracts to cover the goods delivered and those taken in return. The first deals with goods delivered by the seller and in the second, the seller undertakes to purchase goods from the importing country equivalent in value to a certain percentage of the export.

7.2.4 Buyback

Two contracts are usually signed. One for the agreed export of machinery, plant or technology transfer and the other for the subsequent purchase of products made by using the equipment supplied, either for the full or part of the purchase price.

7.2.5 Offset

This is often used for a transfer of technology. The seller agrees that components supplied by the buyer will be incorporated into the end product, and such supply will be used to offset the cost of the ultimate technology transfer to the buyer.

7.3 Smart asset financing (SAF)

SAF consists of working capital solutions and customised fixed asset financing.

On the working capital side, SAF enhances the product offering around inventory (Days Inventory Outstanding) with a just-in-time solution, allowing immediate access, full flexibility and liquidity; paying only for that what the client uses when they use it.

On the fixed asset side, SAF allows, among others, a "Pay-per-Use" model, mapping the future payments of an asset based on the usage by a provider's clients. Deutsche Bank has developed a solution based on the Industrial Internet of Things (IIoT) and real-time data, transferring financial benefits to clients based on clients sharing asset usage data with the Bank.

SAF products can have an on-balance or off-balance-sheet consideration depending on the selected solution.

8

Foreign exchange (FX)

In Section 1.3, we explained why currency movement is a significant risk for importers and exporters, and how this is subsequently managed in trade finance transactions. All businesses should have a strategy for dealing with currency movement risk and monitor the extent and timing of the exposure.

8.1 Terminology

The International Organisation for Standardisation (ISO) publishes a list of standard currency codes referred to as the ISO 4217 code list.[62]

Currency codes are typically composed of a country's two-character Internet country code plus a third character denoting the currency unit. For example, the British pound code (GBP) is made up of the UK Internet code ("GB") plus a currency designator ("P"). Some currency codes – such as the euro (EUR) or Mexican peso (MXN) – do not use a currency designator initial as third letter. Some currencies have changed their currency code from its original form – the Russian ruble, for instance, was changed from RUR to RUB in 1997.

> "Trading with different countries in different currencies will result in an exposure to currency exchange risks"

8.2 Spot and forward rates

The simplest form of currency trading is via spot transactions. This provides the option to 'exchange' one currency against another and is often carried out within two working days. Spot transactions do not require a contract and the short transaction tenor means interest does not need to be factored into the transaction. Therefore, a spot transaction is solely dependent on the exchange rate at that particular time and any small margin applied by the counterpart (often the bank).[63]

In contrast, a forward transaction relates to a currency exchange that will take place at a fixed exchange on a fixed future date.

8.3 Managing risk

Trading with different countries in different currencies will result in an exposure to currency exchange risks.

In addition to cross-currency payments, identifying, monitoring and managing FX exposures is a core treasury task given the material impact that FX volatility can have on corporate earnings. This is an area where banks provide a valuable service – such as Deutsche Bank's FX trading product suite FX4Cash.[64]

9

Sustainable trade finance

9.1 Trade and the planet

While there is a positive correlation between trade and economic growth, the same cannot be said for the environmental impact of goods, where 90% of trade is seaborne. As the Financial Times observed on 30 May 2019, "More than 90,000 ships criss-crossed oceans last year, burning nearly two billion barrels of the heaviest fuel oil made from the dirtiest dregs of a barrel of crude and carrying oil and gas, chemicals, metals and other goods."[65]

9.2 Sustainability reporting and market performance

In December 2015, the ICC Commission on Environment and Energy issued a Policy Statement on *'Sustainability Reporting – Future Directions'*.[66] The statement highlighted that sustainability reporting had become a key way for corporations to disclose information relevant to their sustainability, in a way that complements and adds nuance to standard reports on financial performance. It went on to propose an eight-point approach with key considerations on which each business should reflect as they determine how to advance their corporate sustainability reporting.

1. An indispensable part of corporate sustainability: This covers the disclosure of "material information about corporate activities which are relevant to sustainable development".

2. Scope and materiality: This specifies more detail about the flexibility to report on material issues, "which may differ from one company to another, based on the scale, nature and location of their respective operations".

3. Harmonisation: Here, the guidelines suggest that "using one or two global reporting standards could help reduce inefficiencies, and also serve the interests of users seeking comparability and substance". However, they need flexibility to cope with the different issues and a simplified framework should be available for SMEs.

> “More than 90,000 ships criss-crossed the ocean in 2018”
> Financial Times, 30 May 2019

4. Verification: This is about confidence in the verification process. “Companies and the assurance industry should continue to work constructively together to raise the professional acumen of the assurance industry with respect to verification of non-financial reporting so that competition can expand service provision and lower costs over time”.

5. Local and global relevance: The guidelines state, “A company’s sustainability report must both be relevant to the local context of its activities, and be connected to evolving global standards and industry norms. In other words companies should continually consider, where relevant, not only legal requirements, but also emerging trends, standards and best practices that may be relevant.”

6. Internal and external consultation: The guidelines say that a company “should adopt an inclusive approach to sustainability reporting, both internally and externally”. In particular, it adds, “companies should actively use the reporting process to engage with stakeholder groups who are most impacted by the company’s operations”.

7. Continuous improvement: As the field of sustainability reporting is still evolving, the guidelines recommend that companies should “continually seek to enhance and extend their reporting to support their sustainability strategies and performance”. In other words, reporting is an integral part of the process of target setting, benchmarking, and review.

8. **Integrated reporting:** As the field of sustainability reporting continues to evolve, there should, say the guidelines, “be continuous efforts to integrate non-financial aspects of corporate reporting into business strategy and financial reporting”.

Various studies have been conducted to examine the relationship between economic, social and corporate governance (ESG) practices and financial performance. The IFC observes, “Companies that do good by the environment, their labour force and communities, do well financially”.[67]

In addition, the Deutsche Bank’s Corporate Research team published a study in November 2019 showing how companies that experienced positive press on climate change saw their share prices outperform by 1.4 percentage points per year over the MSCI World Index, while companies with negative press underperformed.[68]

9.3 Sustainability initiatives

9.3.1 ICC Banking Commission

The ICC Banking Commission has established a Sustainable Trade Finance Working Group with the goal of promoting sustainability in trade finance and leveraging banks' role in financing sustainable trade to encourage sustainable business practices. It aims to do this by helping provide clarity to banks in their implementation of sustainability policies and standards.[69]

9.3.2 International Finance Corporation (IFC)

In addition, the IFC defines clients' responsibilities for managing their environmental and social risks with a set of performance standards that apply to all projects going through the IFC's initial credit review process after 1 January 2012.[70]

9.3.3 Banking Environment Initiative (BEI)

The chief executives of some of the world's largest banks created the Banking Environment Initiative (BEI) in 2010. Run from the Cambridge Institute for Sustainability Leadership, its mission is to lead the banking industry in collectively directing capital towards environmentally and socially sustainable economic development. The BEI worked with the IFC to launch a sustainable shipment letter of credit and formed a 'Sustainable Trade Finance' Council in 2016 to "leverage banks' role as facilitators of international trade and thereby accelerate the transition to a world where importing sustainable produced commodities, at scale, is a new market norm".[71] Members include Barclays, Deutsche Bank, Santander, Standard Chartered Bank and Westpac as well as major commodities importers and traders such as Olam, Unilever and Wilmar.

10 Digitalisation

10.1 Move to digitalisation

In the context of financial services, "digital" has been described as "gaining an understanding of customer processes and their end-to-end needs, and then re-imagining what the banking provision should be, given these needs and the availability of new technological solutions".[72]

And this is a good way to understand the difference between "digitisation" and "digitalisation" of trade finance: the former revisits the whole transactional journey and explores if any of it could be replaced with a digital solution; the latter takes existing processes and instruments with a view to finding a digital alternative – such as an electronic bill of lading.

The entry of financial technology (fintech) companies into the world of trade finance provides a set of skills and experience not hitherto available. However, barriers still exist and it will require a great deal of willingness on both sides for full digital transformation to be achieved. As has been noted, there are many web- and data-based financial products that customers cannot obtain from either their bank or a similar provider. This gives rise to a new competitive environment.[73]

But what actually is fintech? Simply put, it is new technology for the delivery of financial solutions and services. A broader definition has been provided by the Financial Stability Board (FSB) as "technologically enabled innovation in financial services that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services".[74]

But data is all about people and that carries a responsibility for data holders and data providers. In the Deutsche Bank white paper, *Regulation driving banking transformation*, the dynamics of the data-led relationship between bank and client is explained in terms of a trusted partnership.

"For our part: yes, we hold data on thousands of clients across the globe, covering not just their cash activities, but also their trade, investment, securities services operations and much, much more. But, even if a business based on commercialising this data stored in our systems became too valuable to ignore, we will have to co-create this proposition with clients and share the fruits of that business accordingly. If data is the new oil, then our clients would likely want to own the rights to the crude in the seabed, and we would become the provider of the drilling platform, the refinery, as well as many other downstream services."[75]

10.2 Industry 4.0

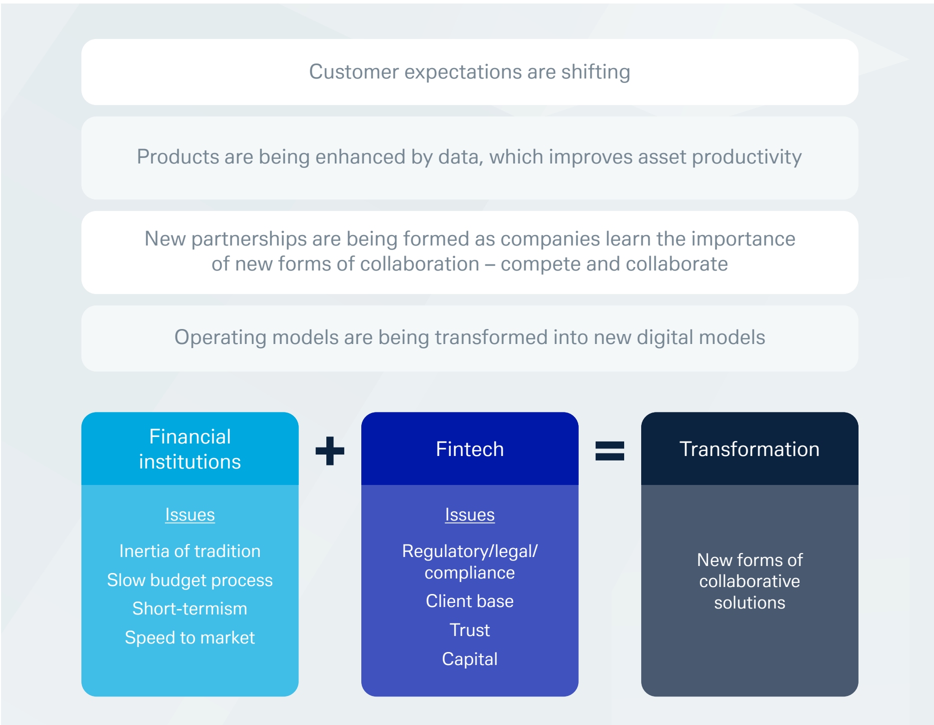
In his book published in 2017, *The Fourth Industrial Revolution*, Professor Klaus Schwab, Founder and Executive Chairman of the World Economic Forum (WEF), maintains that "we are at the beginning of a revolution that is fundamentally changing the way we live, work and relate to one another".[76]

The WEF's Center for the Fourth Industrial Revolution aims to bring market participants together to ensure governance around these technologies is "stable, interoperable, predictable and transparent". At the January 2018 WEF Annual Meeting in Davos-Klosters, Deutsche Bank was announced as a new partner.[77]

In this fourth revolution, often referred to as ‘4IR’, economies are facing a range of new technologies that combine the physical, digital and biological worlds and which will impact all disciplines, economies and industries.[78] These advancements, note many observers, have the potential to dramatically change the way that humans interact, introducing efficiency gains to personal and business lives.

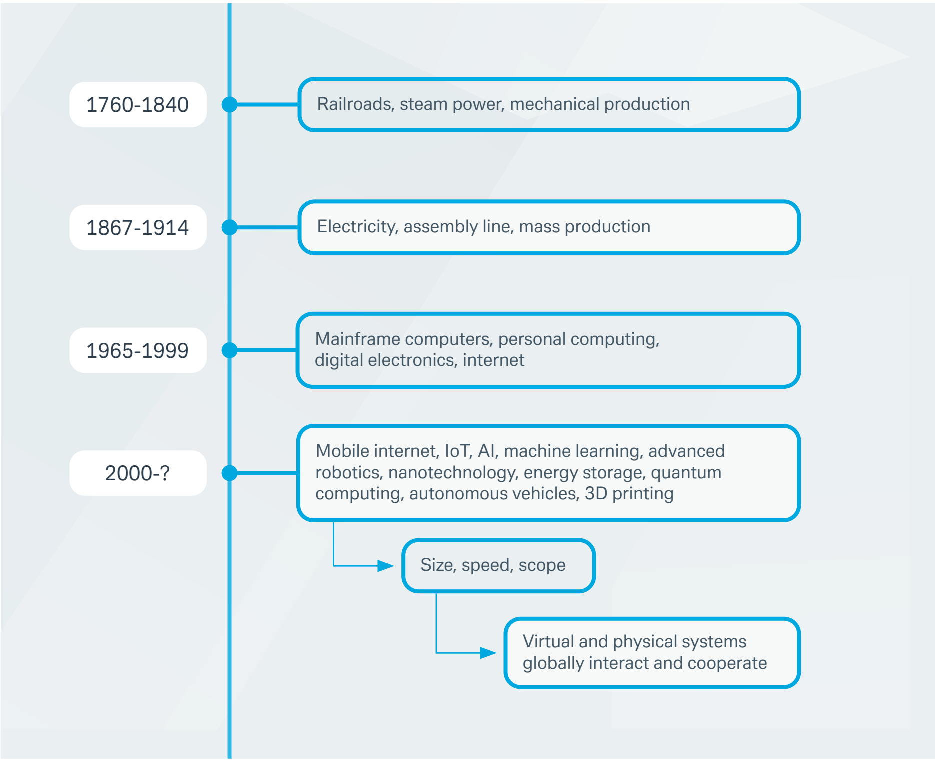
Adoption of and readiness for 4IR is evident in a number of government and trading bloc policy papers of some of the more advanced economies.

Figure 15: The Fourth Industrial Revolution (4IR)



Source: Adapted by David Meynell from The Fourth Industrial Revolution by Klaus Schwab (Executive Chairman, World Economic Forum) [79]

Figure 16: Timelines of 4IR



Source: Adapted by David Meynell from The Fourth Industrial Revolution by Klaus Schwab (Executive Chairman, World Economic Forum)[80]

In his interview with Deutsche Bank's *flow* (*The power of ten*, March 2019), ASEAN Deputy Secretary General Aladdin Rillo explained how the digital revolution affects everyone in ASEAN, across businesses and government and how the whole of ASEAN is committed to embracing the 4IR.[81]

The UK government published a policy paper, *Regulation for the Fourth Industrial Revolution*, in June 2019, in which it sets out its plan for regulating businesses for 4IR while retaining agility and entrepreneurship.[82] The aim will be to create an outcome-focused, flexible regulatory system that enables innovation to thrive while protecting citizens and the environment. In addition, this will be matched with clarity for business through better use of regulatory guidance, codes of practice and industry standards. The paper makes the point that regulation has a powerful impact on innovation. It can stimulate ideas and block their implementation, it can increase or reduce investment risk – and steer funding towards valuable research and development or tick-box compliance. It can also influence consumer confidence and demand and determine whether firms enter or exit a market, the paper notes.

In Germany, meanwhile, the Federation of German Industries makes a similar point that companies investing in Industry 4.0 technologies and the creation of new business models are highly dependent on regulatory frameworks, as legal provisions can help or impede the adaption of new digital solutions and the cooperation with companies abroad. Therefore, governments have to set the right framework that facilitates innovation and cross-border cooperation in the area of Industry 4.0.[83]

10.3 Big Data and Internet of Things (IoT)

In 2016, a report from IBM Marketing Cloud, *10 Key Marketing Trends For 2017*, noted that 90% of the data in the world at that time had been created in the previous two years. The task in this new era of data and digital services is therefore to distil this data into something that has a practical purpose. In other words, transforming data into information, using information to gain knowledge, and ultimately using knowledge to achieve wisdom and drive meaningful improvements to services. This ability to interpret data in new ways will lead to improved product development, speedier time to market, enhanced risk mitigation, superior market and client evaluation, and better innovation.[84]

There is perhaps no more exciting evolution than the IoT which embeds sensory and wireless technology within objects, making it possible to digitally transfer ownership of all kinds of physical property. The technology has an additional benefit in that it also provides the ‘object’ with the ability to transmit data in respect of identity, existing condition and the environment in which it is based.

It is estimated that the IoT will have 50 billion sensors connected to the internet by 2020 and one trillion by 2025 – all transmitting data to each other.[85]

In the trade world, advantages could be obtained in a number of scenarios including:
- Tracking of goods in transit;
- Checking atmospheric and environmental conditions of goods in transit;
- Discovering problems encountered with goods in transit at an earlier stage;
- Access to pre/post-inspection information and updates;
- Immediate awareness of exact date and time of departure and arrival of goods;
- Potential reduction in fraud and corruption;
- Simplified administration; and
- Cost reduction.

The IoT will need, by default, a 'ledger of things' and this is where blockchain will play an important role in tracking and validating the data.[86]

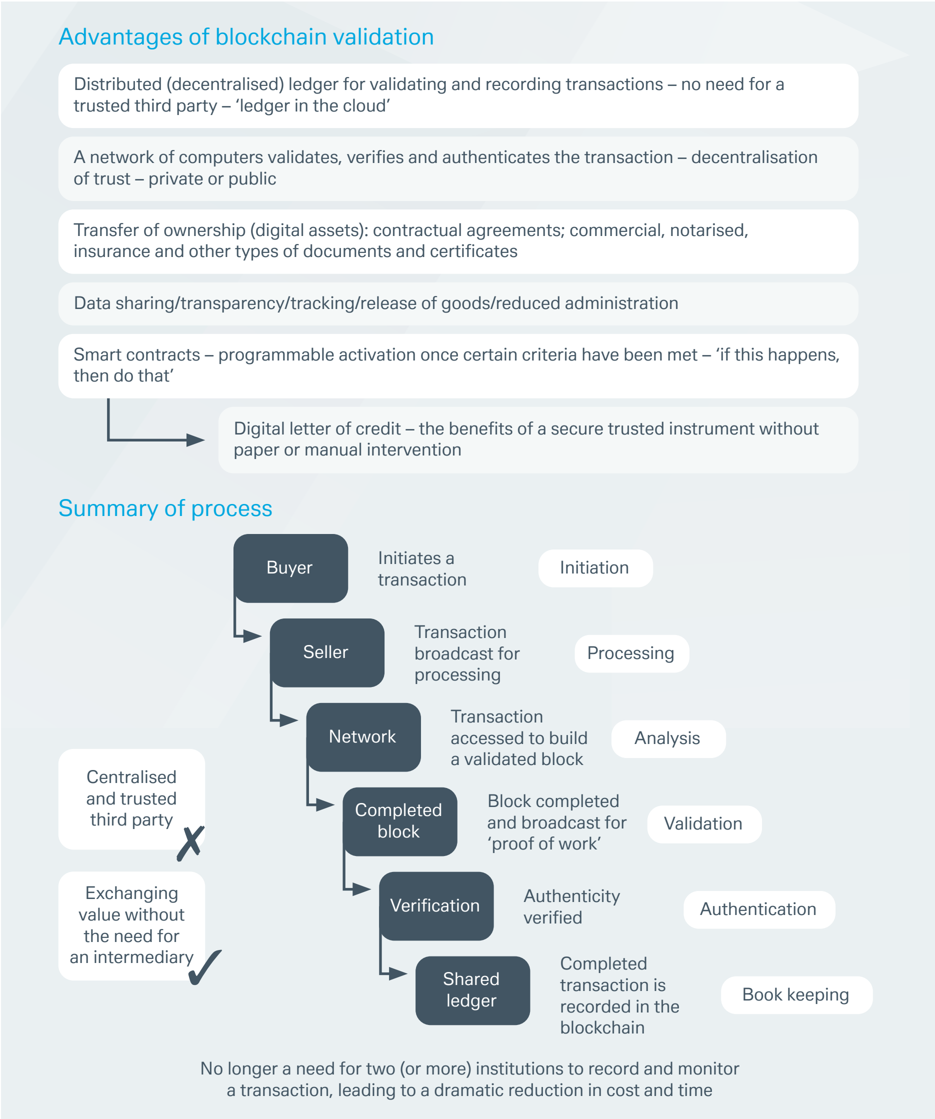
The EU published its ideas and actions for "a digital transformation that works for all" on 19 February 2020, noting "digital is a key enabler to fighting climate change and achieving the green transition".[87] Further details are available in the following white papers, available as links from the press release (see note 87):
- *Communication: A European strategy for data*
- *Artificial intelligence: A European approach to excellence and trust*

10.4 Distributed ledger technology (DLT) including blockchain

Blockchain can be regarded as a decentralised or distributed ledger for validating and recording transactions. As in the physical world, whenever a transaction is initiated, it requires validation and authentication.

However, as opposed to the physical world where such authentication is handled by a trusted third party (often a financial institution), the pending transaction is broadcast to a network of decentralised users (defined as 'miners') who, using specialised software, compete to verify and authenticate the cryptographic key added to a transaction. In essence, the 'miners' are verifying and confirming a bookkeeping record. For this activity, known as 'proof of work', they receive a reward in bitcoins.[88]

Figure 17: Validating transactions in the blockchain



Source: David Meynell

In trade finance, there have been some insightful use cases.[89] One example is Danish container shipping giant Maersk and technology provider IBM announcing in October 2019 that Global Container Terminals in North America had joined their TradeLens supply chain platform underpinned by blockchain technology.[90]

10.5 Smart contracts

In the world of international trade finance, contractual agreements can be agreed between any combination of parties in a trade transaction: buyer; seller; bank; insurance company; government entity; chamber of commerce; shipper /carrier /charterer; inspection, analysis and health companies/organisations; etc.

Having access to real-time data would facilitate the formulation of contracts and documents on an automated basis provided that the underlying required criteria is verified by the blockchain, thus producing what is known in blockchain terminology as a 'smart contract'.

Smart contracts include programmable activation once certain criteria have been met, i.e. 'if this happens, then do that'. A smart contract would not require the intervention of an intermediary such as a bank or a lawyer, as it has removed the need for the trust of a 'third party' by basing the trust element upon a secure mathematical code. The code underlying the contract would execute when a triggering event occurs rather than drafting a contract on a case-by-case basis.

10.6 Artificial intelligence (AI) and machine learning

AI in smart devices simulates intelligent behaviour in order to make decisions with minimal or no human intervention, extracting data, digitising data, learning from the data and analysing the data to make a decision or provide a prediction.[91]

Improving data capability is likely to prove to be of immense benefit to supply chains and, by default, to supply chain financing, particularly when enabling analysis and decisions from data collected by the IoT, allowing for automated and digitised trade finance documentation, combined with support for smart contracts. Regulatory and compliance teams would also obtain benefit from reduced human intervention.

Machine learning is the science of getting computers to learn and act like humans do, and improve their learning over time in an autonomous fashion, by feeding them data and information in the form of observations and real-world interactions.[92]

Whilst the terms AI and machine learning are often used interchangeably, AI represents a much broader concept than machine learning. AI enables devices to act intelligently; machine learning feeds data to devices and allows them to learn for themselves.

As the authors of the Deutsche Bank white paper, *Regulation driving banking transformation*[93] pointed out in October 2018:

"Clients' expectations are changing along with technological development, and they now expect even more personalised services. AI can perform analysis of client data to determine client needs – using the insights gleaned to offer more tailored products and services, as well as automated and predictive resolution of service issues."

They continue, "For instance, a bank algorithm could identify when a corporate client has surplus liquidity in a low-yielding account and recommend a fixed term deposit or money-market fund that would offer better returns. For banks, this not only means a chance to provide a better, more tailored service to their clients, but also potentially to recommend other products in the bank's catalogue that can add value. Breaking down the silos of data, and creating more dynamic ways of accessing it, will make banks the standout financial service providers in an increasingly fragmented industry. On the client side, it's equally advantageous – promising a higher level of service and optimised treasury functions."

10.7 Multi-banking and SWIFT messages

It can be difficult and awkward for corporates to manage advices of export documentary credits received from multiple banks in paper format and via different bank portals. As highlighted by SWIFT, despite an overall trend towards trading on open account terms, traditional trade instruments remain a key component of a bank's finance offering. With this in mind, SWIFT supports banks' finance offerings with standardised corporate-to-bank trade messaging.[94]

Many leading trade banks have extended SWIFT MT7xx standards to the corporate world through the MT798 'Trade Envelope' solution, thereby ensuring improved automation and efficiency via access to multiple banks.[95]

10.8 ICC initiatives

In June 2017, the ICC Banking Commission (now enveloped under the umbrella of the ICC's Finance for Development Hub) launched the *"Digitalisation in Trade Finance Working Group"*. The aim of the Group is to identify strategies to overcome the constraints of digitalising trade finance – such as a reliance on paper-based practices, a lack of recognition of the legal status of electronic documents, uncertainty over standards, and a general lack of clear legal and regulatory frameworks.[96]

The Working Group is the coordinating body on all work by the ICC Banking Commission related to the digitalisation of trade finance, with a mandate to identify ways to overcome the abovementioned obstacles. Main objectives include:
- To evaluate existing ICC rules in order to ensure they are 'e-compliant'.
- To develop a set of minimum standards for the digital connectivity of service to providers.
- To examine the legal and practical issues related to the validity and value of data and documents in digitised form.

10.8.1 ICC eRules

In late 2017 a sub-group was established, under the auspices of the Digitalisation Working Group, to address the 'e-compatibility' of ICC rules for trade finance and ensure they are e-compliant.[97] Subsequent to the initial evaluation, it was concluded that two pieces of work needed to be taken forward:
1. To update the existing version 1.1 of eUCP in order to ensure continued digital compatibility.
2. To draft eURC in order to ensure continued digital compatibility for presentation of electronic records under Collections.

These new eRules, which came into effect on 1 July 2019, provide rules for banks operating in today's increasingly digital trade finance system. The eRules will be continually monitored and updated to reflect future technological developments and trends that emerge in trade finance. By embracing a paperless future, the ICC seeks to safeguard the applicability of traditional trade solutions in a digital environment.

> "It will require a great deal of willingness on both sides for full transformation to be achieved"

The ICC has committed to ensuring that the eRules remain relevant and applicable to banks and other trade finance institutions. An article-by-article analysis has been made available by the ICC on its website.[98]

10.8.2 Uniform Rules for Digital Trade Transactions

In addition to the launch of the eRules, the ICC Banking Commission Executive Committee also approved a proposal to draft a new set of rules under the working title "Uniform Rules for Digital Trade Transactions (URDTT)". The objective of the URDTT is to develop a high-level framework outlining obligations, rules and standards for the digitalisation of trade finance.

The approach taken in the drafting of the URDTT is to produce rules that are agnostic as to the medium used to handle the digital trade, although the digital trade must be conducted using electronic records and not paper.

10.8.3 Electronic Bills of Lading (eBLs)

The ICC Banking Commission, on the recommendation of the Legal Committee, appointed Clyde & Co LLP to conduct a survey on the legal status of eBLs, whether in the form of an electronic record or in paper format when converted from an electronic record.[99] The survey covered the following ten jurisdictions: UK (English law), USA (NY law), Germany, Netherlands, United Arab Emirates, China, Singapore, Brazil, India and Russia.

Although electronic documents are already in existence, it is questionable whether or not the rights and liabilities under an eBL can be transferred without specific contractual agreement.

11 Financial crime

11.1 Definition and overview

The Wolfsberg Group, ICC and BAFT describe financial crime as money laundering, the financing of terrorism and weapons proliferation, breaking of sanctions, financial fraud, financial crimes such as tax evasion and other predicative offences related to trade products and services.[100]

Either through active or passive participation in financial crime, a bank can, on occasion, find itself in a situation where not only is there a potential legal and regulatory implication as well as cost, but also where irreparable damage may occur to its reputation. It should be noted that reputational risk could have far greater consequences for a bank than the mere imposition of a financial penalty.

Each bank should maintain internal guidelines that advise staff of the regulatory requirements for the handling of trade finance transactions and how to look out for suspicious transactions that could be fraudulent or subject to money laundering or terrorism financing; in other words all sorts of financial crime (see Section 11.9).

What is it that makes trade finance a particular target for criminals? The problem exists in the fact that the very nature and complexity of trade finance transactions, and the huge volume of trade flows that exist, can hide individual transactions and help criminal organisations to transfer value across borders. As a result of this, every organisation involved in trade finance holds responsibilities with regards to the prevention of financial crime.

11.2 Money laundering

Money laundering encompasses any act, or attempted act, to conceal or disguise the identity of illegally obtained proceeds so that they appear to have originated from legitimate sources.[101]

For trade-based money laundering, it can be described simply as the misrepresentation of the price, quantity or quality of an import or export.

There are three distinct phases to the act of money laundering:
- Placement – the initial entry of the 'dirty' money or proceeds of crime into the financial system, exchanging it for clean money, i.e. travellers' cheques.
- Layering – electronic movement of funds in multiple constant transactions in order to obscure the audit trail and cut the link with the original crime.
- Integration – funds that are invested or merged in legitimate non-criminal activities and subsequently re-directed as 'clean'.

It is unlikely that trade finance products will be used by money launderers in the placement stage of money laundering, except where funds are used to collateralise the issuance of a bank undertaking. However, they could be used in the layering and integration stages of money laundering as the enormous volume of trade flows obscure individual transactions and the complexities associated with diverse trade financing arrangements that facilitate the commingling of legitimate and illicit funds. [102]

11.3 Terrorist financing

Terrorist financing involves the solicitation, collection or provision of funds to support terrorist acts or organisations. Funds may stem from both legal and illicit sources.[103]

A common feature of terrorist financing and money laundering is the disguising of the ultimate destination of the funds and dual-use goods (see Section 11.5). The Financial Action Task Force (FATF) defines the risks of terrorist financing as a function of three factors:

— Threat: criminals, terrorist groups and their facilitators, their funds, as well as the past, present and future money laundering or terrorist financing activities.
— Vulnerability: factors that represent weaknesses in systems or controls or certain features of a country.
— Consequence: refers to the impact or harm that money laundering or terrorist financing may cause and includes the effect of the underlying criminal and terrorist activity on financial systems and institutions, as well as the economy and society more generally. The consequences of money laundering or terrorist financing may be short or long-term in nature and also relate to populations, specific communities, the business environment, or national or international interests, as well as the reputation and attractiveness of a country's financial sector.[104]

11.4 Proliferation financing

The FATF working group on terrorist financing and money laundering (see Section 11.9 for more detail on FATF) has proposed the following definition of proliferation financing: "The act of providing funds or financial services which are used, in whole or in part, for the manufacture, acquisition, possession, development, export, trans-shipment, brokering, transport, transfer, stockpiling or use of nuclear, chemical or biological weapons and their means of delivery and related materials (including both technologies and dual-use goods used for non-legitimate purposes), in contravention of national laws or, where applicable, international obligations."[105]

In addition, ICC's Policy Statement, published in June 2019, *How does global trade and receivables finance mitigate against proliferation financing*, provides useful guidance for financial institutions in identifying high-risk customers and transactions in relation to proliferation finance related to weapons of mass destruction.[106]

Proliferation differs from money laundering in several respects. The fact that proliferators may derive funds from both criminal activity and/or legitimately sourced funds means that transactions related to proliferation financing may not exhibit the same characteristics as conventional money laundering. Furthermore, the number of customers or transactions related to proliferation activities is likely to be markedly smaller than those involved in other types of criminal activity such as money laundering.

11.5 Dual-use items

Dual-use items are goods, software, technology, documents and diagrams which can be used for both civil and military applications. They can range from raw materials such as sugar (which can be used in explosives manufacturing as well as foodstuffs) to components and complete systems – such as aluminium alloys, bearings or lasers. They could also be items used in the production or development of military goods, such as machine tools, chemical manufacturing equipment and computers.[107]

Most countries have legislation and control procedures in place for the export of such items.[108]

11.6 Sanctions

Sanctions are trade controls that can be (and are) imposed by the UN, the EU Council, or individual countries – such as the US via its Office of Foreign Assets Control (OFAC) – for political or economic reasons. The Charter of the UN refers to sanctions as "measures not involving the use of armed force', including a 'complete or partial interruption of economic relations."[109]

Most sanctions will include a rationale as to why they have been imposed and their proposed aims. Sanctions can prohibit dealings with not only specific countries or companies, but also individuals and property. Sectoral sanctions can identify individuals operating in sections of a sanctioned economy, such as those published by OFAC regarding persons operating in sectors of the Russian economy.[110] Sanction lists will often include names of known terrorist organisations or individuals. The concerned regulatory body can impose a substantial financial and/or economic penalty if a sanction regulation is ignored or not applied to its full extent.

Sanction issues continue to cause problems in trade transactions, including those that are subject to ICC rules. This necessitated, in 2014, the release of an updated sanctions guidance paper by the ICC Banking Commission.[111]

The paper focuses on three main issues:
— Impact of proliferation of sanctions clauses in trade finance-related instruments subject to ICC rules.
— Specimen sanctions clauses encountered in practice.
— Recommendations for best practices.

"The concerned regulatory body can impose a substantial financial and/or economic penalty if a sanction regulation is ignored or not applied to its full extent"

11.7 Fraud

There is no single definition that is used globally to describe the act of 'fraud' but the following from the Oxford English Dictionary may come close: "Wrongful or criminal deception intended to result in financial or personal gain".

In Section 15(4) of the UK Theft Act 1968, 'deception' refers to "any deception (whether deliberate or reckless) by words or conduct as to fact or as to law, including a deception as to the present intentions of the person using the deception or any other person". In simple terms, this means that fraud includes any intentional or deliberate act to deprive another of property or money by guile, deception or other unfair means.

Fraudulent trade transactions have existed since trading began many thousands of years ago. All parties involved in trade need to be aware of the potential for fraud:

— Buyers run the risk of paying for sub-standard, or even non-existent, goods;
— Sellers run the risk of not receiving funds despite having shipped goods according to the contract;
— Banks run the risk of being involved in a fraudulent transaction and suffering an ensuing financial loss.

Lord Diplock (1907–1985), an English judge, made reference to fraud in documentary credit transactions as: "documents that contain, expressly or by implication, material representations of fact that to his [the issuer's] knowledge are untrue".[112]

As with financial crime, banks need to introduce processes, procedures and/or guidelines for the identification and internal escalation of fraudulent transactions in order to minimise any potential financial loss. Identifying fraudulent documents often comes down to experience – the look, the feel, the content and the layout of the paper.[113]

The ICC Commercial Crime Services is based in the UK and has a specialist Financial Investigation Bureau (FIB) that "conducts enquiries and investigations into matters associated with money laundering, fraud and suspect documents".[114] It also provides training on how to spot suspicious documentation.

11.8 Red flags

There exist certain features in trade finance transactions that may provide a warning sign that closer attention is required. These include:

— No requirement for an original or copy transport document and/or pre-accepted discrepancies.
— Inconsistency with customer strategy and/or unnecessarily complex structure and/or non-standard clauses.
— Excessive client pressure and/or avoidance to provide clarity.
— Description of goods not matching, and/or military or potentially dual-use goods.
— Inconsistent shipment locations/quantity of goods exceeds known capacity of containers or usual form of packing.
— Changes of address.
— Unusually favourable payment terms.

The above list is not exhaustive and each bank should ensure it has its own comprehensive list and guidelines.[115]

The FATF has also identified 42 red-flag indicators that are routinely used to identify trade-based money laundering activities. These cover the following areas:

— About the client
— Source of funds
— Choice of lawyer
— Nature of the retainer

11.9 Industry groups

A number of international bodies have been established to combat financial crime, with part of their focus being to provide tools to help prevent and/or identify suspect transactions. Many countries have a financial intelligence unit (FIU) that will provide information on current money laundering and terrorist financing trends.[116]

11.9.1 The Financial Action Task Force (FATF)

The FATF is an inter-governmental body established in 1989 by the Ministers of its Member jurisdictions. The objectives of the FATF are to set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system. The FATF is therefore a “policy-making body” which works to generate the necessary political will to bring about national legislative and regulatory reforms in these areas.[117]

11.9.2 The Wolfsberg Group

The Wolfsberg Group is an association of thirteen global banks whose aims are to develop financial services industry standards, and related products for Know Your Customer, Anti-Money Laundering and Counter-Terrorist Financing policies.[118]

12

Future of trade finance

As we can see from the many variations of trade finance, it has evolved considerably since the Crusaders left cash at London's Temple Church, withdrawing it in Jerusalem via a letter of credit in the 11th Century.[119]

How will it evolve over the next few decades? When it comes to trade, the industry has learned to expect the unexpected and combine revolution with evolution, but at this point in time, the following six areas appear to be the main drivers of change:

12.1 Digitalisation and fintech industry participation

Already underway with a number of initiatives reviewed in this publication, we can expect to see access to trade finance through mobile apps and end-to-end transaction transparency sooner rather than later.

12.2 The Fourth Industrial Revolution (4IR)

Summarised in Section 10.2, this look set to accelerate, with artificial intelligence, 3D printing, biometrics, being aspects of 4IR that could shape goods and services cross borders and how they are financed.

12.3 Sustainable trade

As noted in Section 9, the momentum to drive sustainable trade behaviour through regulation and attractive financing propositions looks set to accelerate. The Banking Environment Initiative is gathering traction at last, as are other industry-wide initiatives assessing sustainable performance indicators (such as The Sustainability Consortium) are gathering traction.[120]

> "In trade, the industry has learned to expect the unexpected"

12.4 Convergence of sources of finance

Trade finance has, traditionally, stepped in where borrowers are unable to source capital markets liquidity – often because of credit rating as a result of country risk. Increasingly, we are seeing deals where capital markets solutionswork together with trade finance solutions to deliver overall liquidity at acceptable leverage ratios.

12.5 Data and privacy

The technology from developments such as the IoT and the Cloud have brought a new set of opportunities and regulatory responsibilities. This has the potential to make Know Your Customer checks more efficient, make it possible to deliver services better tailored to customer needs and for banks and fintechs to work together to deliver liquidity to those hitherto unable to access traditional trade finance.

12.6 Covid-19

The Covid-19 pandemic has dislocated all parts of the world, causing widespread macroeconomic shock to emerging and developed economies alike – as containment in the form of lockdowns has interrupted trade and supply chains. Demand has collapsed in some sectors such as tourism, and risen in others such as pharmaceuticals. It remains to be seen how trade will recover, but just as during the Global Financial Crisis, getting liquidity to those that need it most will continue to be the industry's challenge.
ICC published guidance to the trade finance market addressing Covid-19 disruptions, with Secretary-General John Denton calling for "action from governments, central banks and international regulatory bodies to ensure the processing of trade finance instruments and the vital flow of goods that they facilitate".[121]

Deutsche Bank Research data and analysis on the Covid-19 impact can be found in summary form at db.com/flow/COVID-19

References

1. Principles of Economics, Oxford University Press
2. https://www.wto.org/english/res_e/statis_e/wts2019_e/wts2019chapter02_e.pdf
3. https://www.gtb.db.com/insights-and-initiatives/flow/road_to_samarkand.htm
4. An Inquiry into the Nature and Causes of the Wealth of Nations
5. Rufus Trimble (The Law Merchant and the Letter of Credit, 1947)
6. https://www.libf.ac.uk/study/professional-qualifications/trade-finance
7. See the *flow* article *'Merchants of peace'* for more detail at https://cib.db.com/insights-and-initiatives/flow/trade-finance/merchants-of-peace.htm
8. https://www.accenture.com/t20160412T053548__w__/us-en/_acnmedia/Accenture/Conversion-Assets/DotCom/Documents/Global/PDF/Dualpub_21/Accenture-Trade-Finance.pdf
9. See Note 2
10. Harbottle Mercantile Ltd v National Westminster Bank Ltd, 1977
11. https://cdn.iccwbo.org/content/uploads/sites/3/2014/08/Guidance-Paper-on-The-Use-Of-Sanctions-Clauses-In-Trade-Finance-Related-Instruments-Subject-To-ICC-Rules.pdf
12. https://www.tradefinance.training 'Bank Guarantees – types, responsibilities, process and practice'
13. Ibid
14. Ibid
15. https://www.tradefinance.training 'Standby Letters of Credit in practice'
16. http://iiblp.org/banking-law-resources/isp-forms/
17. https://iccwbo.uk/products/icc-uniform-rules-for-forfaiting
18. https://2go.iccwbo.org/uniform-rules-for-bank-payment-obligations-config+book_version-Book/
19. https://iccwbo.org/media-wall/news-speeches/icc-revises-docdex-rules-enhancing-scope-transparency-and-efficiency/
20. https://internationalbanker.com/finance/digitalisation-trade-finance-whats-next/
21. https://www.abe-eba.eu/media/azure/production/1544/eba-market-guide-on-supply-chain-finance-version-20.pdf
22. https://iccwbo.org/media-wall/news-speeches/cross-industry-initiative-establishes-standard-definitions-for-techniques-of-supply-chain-finance/
23. GSCFF Standard Definitions for Techniques on Supply Chain Finance
24. http://supplychainfinanceforum.org/global-supply-chain-finance-forum-issues-receivables-discounting-guidance-to-drive-further-clarity-on-terms-and-techniques/
25. Ibid
26. Ibid
27. Ibid
28. https://cib.db.com/insights-and-initiatives/white-papers/index.htm
29. GSCFF Standard Definitions for Techniques on Supply Chain Finance
30. Ibid
31. Ibid
32. Ibid
33. https://cib.db.com/news-and-events/news/deutsche-bank-relaunches-us-3-5bn-landmark-trade-finance-securitisation.htm
34. For a case study on this structure see https://cib.db.com/insights-and-initiatives/flow/nature-of-the-beast.htm
35. https://cib.db.com/insights-and-initiatives/flow/trade-finance/sunset-to-sunrise.htm
36. https://cib.db.com/insights-and-initiatives/flow/trade-finance/after-the-perfect-storm.htm
37. https://www.gtreview.com/news/asia/qingdao-fraud-probe-ends-with-jail-term/
38. https://www.reuters.com/article/us-china-metals-fraud/qingdao-metals-scandal-accused-handed-23-year-jail-term-idUSKBN1O91G8

39. https://www.berneunion.org
40. Ibid
41. https://www.oecd.org/trade/topics/export-credits/
42. Ibid
43. http://www.cdb.com.cn/English/gykh_512/khjj/
44. http://english.eximbank.gov.cn/
45. https://cib.db.com/insights-and-initiatives/white-papers/index.htm
46. https://cib.db.com/insights-and-initiatives/flow/export-finance-also-proves-successful-in-times-of-uncertainty.htm
47. https://eba.europa.eu/regulation-and-policy/single-rulebook/interactive-single-rulebook/504
48. http://www.eib.org/en/about/partners/development_banks/index.htm
49. https://iccwbo.org/content/uploads/sites/3/2018/05/icc-2018-global-trade-securing-future-growth.pdf
50. Ibid
51. https://www.worldbank.org/en/events/2017/10/02/role-of-multilateral-development-banks
52. https://www.afdb.org/en/about/mission-strategy
53. https://www.adb.org/site/trade-finance-program
54. http://cib.db.com/insights-and-initiatives/flow/unlocking_trade.htm
55. https://www.ebrd.com/work-with-us/trade-facilitation-programme.html
56. http://www.eib.org/en/index.htm
57. https://www.iadb.org/en/about-us/overview
58. http://www.worldbank.org/en/about/what-we-do
59. https://www.itfc-idb.org/en/content/what-itfc
60. https://www.tradefinance.training/blog/articles/islamic-banking-an-introduction/
61. https://www.itfc-idb.org/en
62. https://www.xe.com/iso4217.php
63. https://deutschebank.nl/nl/docs/DCM_FSG_Foreign_Exchange_Management_Deutsche_Bank.pdf
64. https://www.db.com/company/en/fx4cash.htm
65. https://www.ft.com/content/642b6b62-70ab-11e9-bf5c-6eeb837566c5
66. https://iccwbo.org/publication/sustainability-reporting-future-directions/
67. https://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Sustainability-At-IFC/Business-Case/
68. https://cib.db.com/insights-and-initiatives/flow/trade-finance/past-the-tipping-point.htm
69. https://www.gtreview.com/news/sustainability/roundtable-driving-consensus-in-sustainable-trade-finance/
70. https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/performance-standards
71. https://www.cisl.cam.ac.uk/business-action/sustainable-finance/banking-environment-initiative
72. http://cib.db.com/insights-and-initiatives/flow/the-other-99-percent.htm
73. https://www.deutschebank.nl/nl/docs/Fintech-The_digital_revolution_in_the_financial_sector.pdf
74. http://www.fsb.org/what-we-do/policy-development/additional-policy-areas/monitoring-of-fintech/
75. https://cib.db.com/insights-and-initiatives/white-papers/regulation-for-the-new-era-of-banking-must-balance-innovation-with-risk.htm
76. https://www.weforum.org/about/the-fourth-industrial-revolution-by-klaus-schwab
77. https://www.db.com/newsroom_news/2018/deutsche-bank-joins-center-for-the-fourth-industrial-revolution-en-11475.htm
78. Bernard Marr, "Why Everyone Must Get Ready For The 4th Industrial Revolution", April 2016

79. https://www.weforum.org/about/the-fourth-industrial-revolution-by-klaus-schwab
80. https://www.weforum.org/about/the-fourth-industrial-revolution-by-klaus-schwab
81. https://cib.db.com/insights-and-initiatives/initiatives/power-of-ten.htm
82. https://www.gov.uk/government/publications/regulation-for-the-fourth-industrial-revolution/regulation-for-the-fourth-industrial-revolution
83. https://english.bdi.eu/article/news/industry-40/
84. http://www.cib.db.com/insights-and-initiatives/flow/knowledge_from_information.htm
85. DHL and Cisco, Internet of Things in Logistics, 2015
86. https://www.blockchain-expo.com/2017/06/blockchain/don-tapscott-iot-needs-ledger-things/
87. https://ec.europa.eu/commission/presscorner/detail/en/ip_20_273
88. https://www.tradefinance.training/blog/articles/blockchain-implications-for-trade-finance/
89. Summarised in https://cib.db.com/insights-and-initiatives/flow/trade_finance_and_the_blockchain_three_essential_case_studies.htm
90. https://blog.tradelens.com/news/press-releases/gct-joins-tradelens/
91. https://www.db.com/newsroom_news/2017/deutsche-bank-rolls-out-new-ai-based-equities-algorithmic-platform-in-apac-en-11748.htm
92. https://emerj.com/ai-glossary-terms/what-is-machine-learning/
93. https://cib.db.com/insights-and-initiatives/flow/regulation-driving-banking-transformation.htm
94. https://www.swift.com/our-solutions/corporates/drive-trade-digitisation/mt-798
95. http://cib.db.com/insights-and-initiatives/flow/33381.htm
96. https://iccwbo.org/media-wall/news-speeches/icc-banking-commission-launches-working-group-digitalisation-trade-finance/
97. Co-chaired by David Meynell, Senior Technical Advisor, ICC Banking Commission
98. https://cdn.iccwbo.org/content/uploads/sites/3/2019/07/icc-commentary-on-eucp-2-0-and-eurc-1-0-article-by-article-analysis.pdf
99. https://www.clydeco.com/insight/reports/the-legal-status-of-e-bills-of-lading
100. https://cdn.iccwbo.org/content/uploads/sites/3/2017/01/ICC-Wolfsberg-Trade-Finance-Principless-2017.pdf
101. Source: Interpol, General Assembly, Beijing, October 1995
102. https://www.tradefinance.training 'Financial Crime'
103. Source: www.imf.org
104. http://www.fatf-gafi.org/publications/methodsandtrends/documents/nationalmoneylaunderingandterroristfinancingriskassessment.html
105. https://www.fatf-gafi.org/media/fatf/documents/reports/Status-report-proliferation-financing.pdf
106. https://library.iccwbo.org/tfb/ps/icc-policy-statement-how-does-global-trade-and-receivables-finance-mitigate.pdf
107. https://www.gov.uk/guidance/controls-on-dual-use-goods
108. https://www.tradefinance.training 'Financial Crime, Fraud and Sanctions'
109. https://www.un.org/securitycouncil/content/repertoire/actions#rel3
110. https://www.treasury.gov/resource-center/sanctions/SDN-List/Pages/ssi_list.aspx
111. https://iccwbo.org/publication/guidance-paper-on-the-use-of-sanctions-clauses-2014/
112. United City Merchants v Royal Bank of Canada [1982]
113. https://www.tradefinance.training 'Fraud'
114. https://www.icc-ccs.org/icc-commercial-crime-services-ccs
115. https://www.tradefinance.training 'Financial Crime'
116. https://www.coe.int/en/web/moneyval/implementation/fiu
117. http://www.fatf-gafi.org/home/
118. https://www.wolfsberg-principles.com
119. https://www.bbc.co.uk/news/business-38499883
120. http://www.sustainabilityconsortium.org/
121. https://iccwbo.org/media-wall/news-speeches/icc-provides-guidance-to-the-trade-finance-market-to-address-covid-19-disruptions/

Glossary of terms

Advance payment guarantee. The purpose of an advance payment guarantee is to reimburse money paid in advance under certain circumstances

Bid bond. Issued by a bank to ensure that a bidder cannot alter the tender proposal or withdraw from the tender process before the tender is awarded

Borrowing base finance. Credit facilities extended to a processor of, or a trader in commodities to finance the purchase, processing, storage, logistics and the subsequent sale to end buyers of identified commodities or an identified commodity flow

Countertrade. Reciprocal form of international trade where goods or services are paid for in whole, or in part with other goods and services, rather than money

Demand guarantee. A demand guarantee represents the guarantor's undertaking to pay a named beneficiary a sum of money upon presentation of specified documents conforming to the terms and conditions of the guarantee

Digitalisation. The transformation of a business process that has been enabled by the existence of digitised data

Digitisation. The reconfiguration of a process from start to finish digital form rather than transforming an analogue one

Distributor finance. Financing for a distributor of a large manufacturer to cover the holding of goods for re-sale and to bridge the liquidity gap until the receipt of funds from receivables following the sale of goods to a retailer or end-customer

Documentary collections. The delivery of a draft, promissory note or cheque and/or documents by a bank to a third party (i.e., an importer), on behalf of the exporter, against fulfilment of certain conditions i.e., payment, acceptance or another specified consideration

Documentary credit. Written undertaking given by a bank (issuing bank) to the seller (beneficiary) on the instruction of the buyer (applicant) to pay at sight or at a determinable future date up to a stated amount of money

Dual-use items. Goods, software, technology, documents and diagrams which can be used for both civil and military applications

Export credit. Credit a seller offers to a buyer in a sales contract

Export credit agencies. Public agencies and/or departments that provide government-backed loans, guarantees and insurance to exporters from their home country that seek to sell equipment and services overseas

Export credit insurance. An alternative method of assuring payment for goods, services or performance by mitigating risk and payment uncertainty

Factoring. Sales of receivables (represented by outstanding invoices) at a discount to a finance provider who becomes responsible for managing the debtor portfolio and collecting the payment of the underlying receivables

Financial crime. Money laundering, the financing of terrorism and weapons proliferation, breaking of sanctions, financial fraud, financial crimes such as tax evasion and other predicative offences related to trade products and services

Forfaiting. Without recourse purchase of future payment obligations represented by financial instruments or payment obligations at a discount or at face value in return for a financing charge

Forward rate. A currency exchange that will take place at a fixed exchange on a fixed future date

Fraud. Wrongful or criminal deception intended to result in financial or personal gain

Islamic trade finance. Financing that must create real assets from which profit can be generated

Letter of credit. Written undertaking given by a bank (issuing bank) to the seller (beneficiary) on the instruction of the buyer (applicant) to pay at sight or at a determinable future date up to a stated amount of money

Multilateral development banks. Supranational institutions set up by sovereign states as their shareholders that foster economic and social progress in developing countries by financing projects, supporting investment and generating capital for the benefit of all global citizens

Money Laundering. Any act, or attempted act, to conceal or disguise the identity of illegally obtained proceeds so that they appear to have originated from legitimate sources

Open account. Goods are shipped and are often available to a buyer prior to when payment or acceptance to the seller has been arranged

Payables finance. Buyer-led programme within which sellers in the buyer's supply chain are able to access finance by means of receivables purchase

Performance guarantee. Undertaking to undertake, deliver and/or complete contractual obligations, and assures payment in the event that the applicant does not fulfil its stated contractual obligations

Pre-export finance. A loan made to a producer (exporter) of commodities based on the value (price and quantity) of commodities to be sold and delivered to an eligible off-taker.

Prepayment finance. Finance provided with limited recourse to the off-taker and with full recourse to the exporter

Pre-shipment finance. Loan to a seller of goods and/or services for the sourcing, manufacture or conversion of raw materials or semi-finished goods into finished goods and/or services, which are then delivered to a buyer

Receivables finance. Financing to a borrower related to outstanding balances of invoices billed to customers but not yet paid

Reserve-based lending (RBL). Senior secured revolving borrowing base facilities collateralised by an approved basket of upstream oil and natural gas assets/ reserves

Sanctions. Trade controls imposed for political or economic reasons

Securitisation (trade finance). A means by which capital can be raised by selling, on a revolving basis, a selection of receivables to a legally separate, bankruptcy-remote special purpose vehicle (SPV)

Smart asset financing. Working capital solutions and customised fixed asset financing that can be deployed on or off the balance sheet

Smart contract. A programmable activation once certain criteria have been met, i.e. 'if this happens, then do that' removing the need for the trust of a 'third party' by basing the trust element upon a secure mathematical code

Spot rate. The 'exchange' of one currency against another

Standby credit. Represents a secondary obligation covering default only and provides security against non-performance as opposed to performance

Warehouse financing. Financing is provided to a manufacturer against the security of warehouse receipts representing the underlying commodity

This document is part of Deutsche Bank's corporate and transaction banking insights brought to you by *flow*.

Register now for exclusive news and insights: www.db.com/flow