6. Consequences of the NSFR for trade finance

Given the small number of banks classified as mostly active in trade finance (one bank in December 2014), the assessment of the impact of the NSFR on trade finance could not be conducted by relying on the QIS data. This chapter describes the size of the market and its main characteristics in order to assess the impact of imposing the NSFR. The chapter assesses different types of instruments used in trade finance and considers their funding implications. Overall, the chapter foresees potentially high additional costs to be charged to final users if a high degree of stable funding is required for this kind of loan. This could reduce demand in this market. Apart from these reasons of general economic interest, the report assesses the specificities inherent to each of these transactions (namely letters of credit, bank guarantees, loans for exports/imports, and factoring) in order to give separate assessments.

For off-balance-sheet commitments in trade finance (letters of credit and bank guarantees), the report suggests applying graduated and low RSF factors for contingent trade finance products, reflecting the low funding risk and the secured nature of the activity; for example, a 5% RSF factor for transactions below six months, 10% up to one year, and 15% if above one year.

For on-balance-sheet exposures in trade finance, overall the report suggests that higher stable funding should be required than for off-balance-sheet exposures. Indeed, contrary to off-balance-sheet items, loans need to be funded by banks.

Import and export loans generally have maturities shorter than one year. The Basel NSFR treats these loans like other loans to non-financial corporates and imposes a 50% stable funding requirement if their residual maturity is less than one year, and an 85% requirement if it is longer. The report suggests applying the Basel NSFR factors for maturities longer than six months, while considering the use of lower requirements for shorter maturities (e.g. between 10-25%), balancing their short-term nature and the need for funding continuity of on-balance-sheet activities.

Factoring/forfaiting institutions receive a preferential treatment in the LCR DA, where they may be exempt from the inflow cap. The majority of these transactions appear to be below six months. The report suggests different potential alternatives for factoring institutions, ranging from a lower RSF factor when the maturity is below six months, similarly to import/export loans (10-25%), to a lower NSFR requirement, or even to a waiver on a solo basis (considering that most of the factoring institutions are banks' subsidiaries).

6.1 What is trade finance?

The term '**trade finance**' generally refers to finance that facilitates the trade of goods. Typically, trade finance is provided by banks and financial institutions, which intermediate between the buyer and the seller by providing financing to mitigate the risks involved in international as well as domestic trade. This is to be distinguished from **trade credit**, which involves no intermediation by financial firms. In a trade credit, the seller (exporter) of goods provides the buyer (importer) with a loan so that the buyer does not have to pay immediately at the point of purchase but within an agreed time period. At the same time, trade credit can also involve financial entities when either the exporter or the importer obtains credit insurance on their exposure. The implementation of the NSFR can thus be relevant for both trade finance and trade credit.

6.2 Types of trade finance

The risk involved in the trade of goods relates to the gap between the payment for and the delivery of the goods (referred to as the 'trade cycle' finance gap). Through trade finance, the seller of goods reduces the **payment risk** while the buyer aims to reduce the **delivery risk** from the seller. The duration between the shipping of the goods and the final delivery determines the term of the trade finance transaction, which is typically short term. Moreover, the term of trade financing transactions is directly related to the shipment of the goods, which means that there is no automatic rollover of the transactions. Trade finance can take different forms:

- trade credit insurance;
- letters of credit (documentary credits);
- bank guarantees;
- export/import loans; and
- factoring or forfaiting.

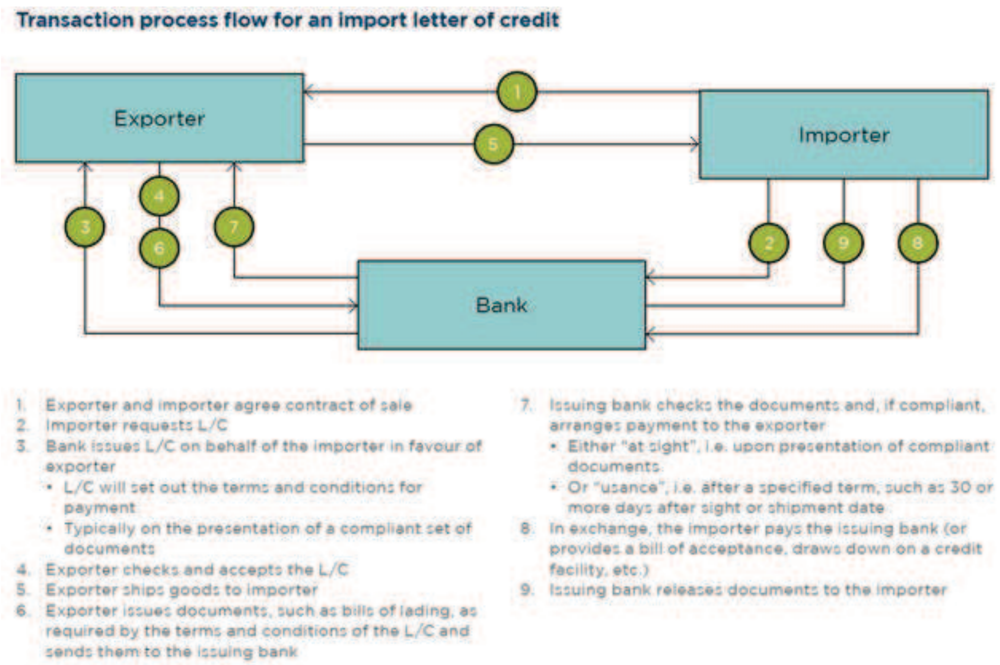
6.2.1 Trade credit insurance

A seller providing trade credit is exposed to the credit risk of the buyer. Trade credit insurance provides the seller with protection against the risk of non-payment by the buyer. The non-payment may be due to the insolvency of the buyer or, in an international trade, due to political risks that prevent payment. Insurance against political risk is offered by private and government-sponsored entities such as Euler Hermes.[20]

[20] In 2003, guarantees granted by Euler Hermes amounted to EUR 103 billion. See Moser et al. (2008) for an overview and analysis of the role of export guarantees for trade.

6.2.2 Letter of credit

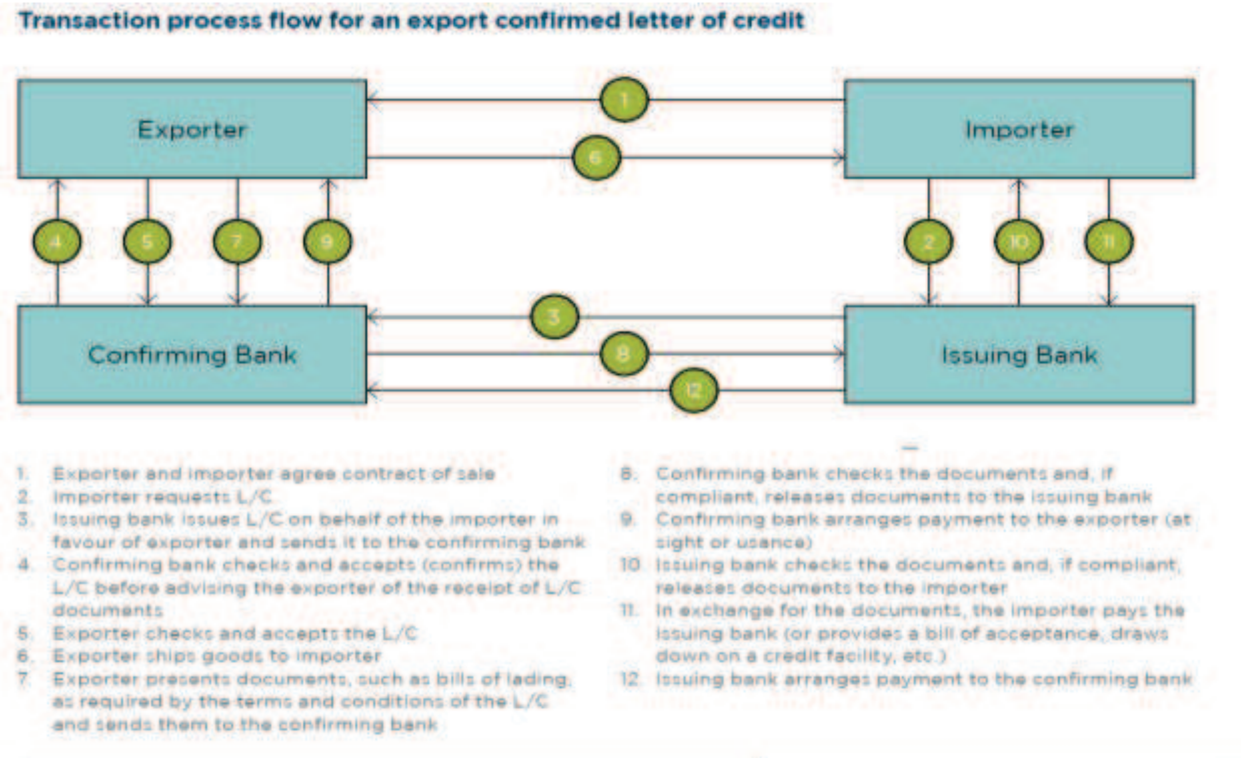
When goods are traded, the seller and the buyer need to agree on the process of how to pay for the goods. While the buyer may be reluctant to prepay for the traded goods, the seller may also be unwilling to ship the goods before payment is made. In this situation, a bank can intermediate between the trading partners by providing an import letter of credit (L/C) to the buyer of the goods, which guarantees payment to the seller. In order to protect against the risks in the delivery of the goods, the buyer requests that the seller provide documentation proving that the goods have been shipped. Once the bank receives the documentation confirming shipping has been made, the seller receives the payment from the bank while the bank receives payment from the buyer (or the buyer draws down a credit line).



Source: ICC (2014)

In addition, the seller could also ask another bank for an export confirmed L/C to guarantee against non-payment from the bank issuing the import L/C. In this case, two banks intermediate the trade transaction between seller and buyer.

A L/C is a contingent liability and payment is only made by the bank to the seller from funds in the buyer's account when the documentation of shipping is presented.

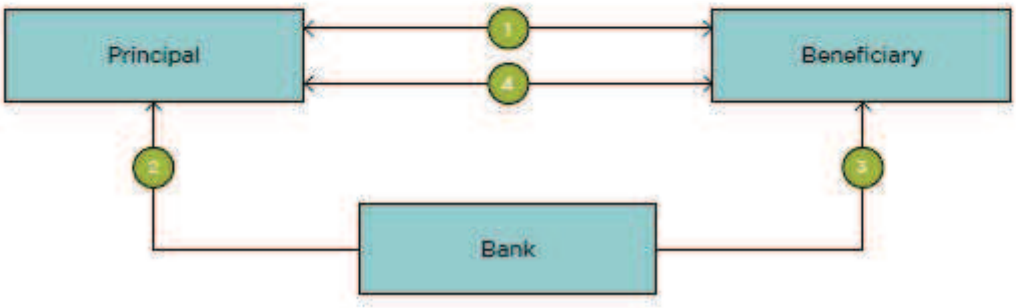


Source: ICC (2014)

6.2.3 Bank guarantee

Similar to a L/C, the bank intermediates between a buyer and seller of goods by providing a guarantee to one of them. For instance, the bank guarantees payment to the seller if the buyer fails to fulfil his contractual obligations. Guarantees typically have a medium to longer term and are used when the commercial relationship is of a longer nature.

Transaction process flow for a performance guarantee



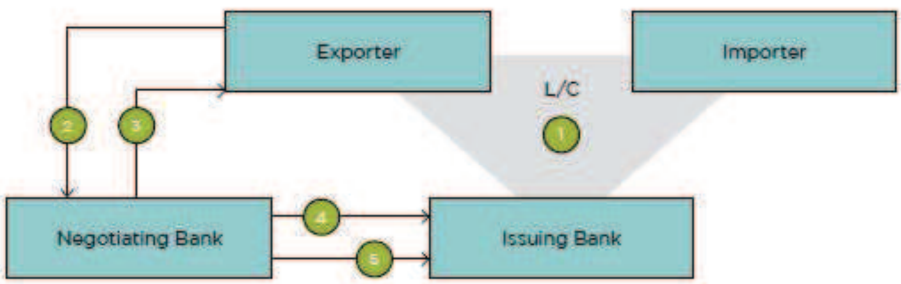
1. Principal and beneficiary agree contract of sale
2. Principal requests a performance guarantee
3. Bank issues performance guarantee on behalf of the principal in favour of beneficiary
   - Can also be structured as an L/C
   - Principal is exporter: guarantees the exporter's obligations to deliver and perform according to the contract
   - Principal is importer: guarantees the importer's payment for goods or services provided under the terms of the contract
   - Issued and delivered on behalf of principal at contract signing or before delivery
4. Exporter ships goods to importer; importer pays exporter

Source: ICC (2014)

6.2.4 Loans for export/import

With a loan for export, the seller uses a L/C as collateral to obtain a loan from another so-called negotiating bank. This allows the seller to cover costs, accessing funding until payment is made. Under this arrangement, the negotiating bank effectively buys the right to receive the payment from the buyer, i.e. from the L/C-issuing bank. Under this type of transaction, the negotiating bank effectively provides a loan to the buyer.

Transaction process flow for a negotiable L/C

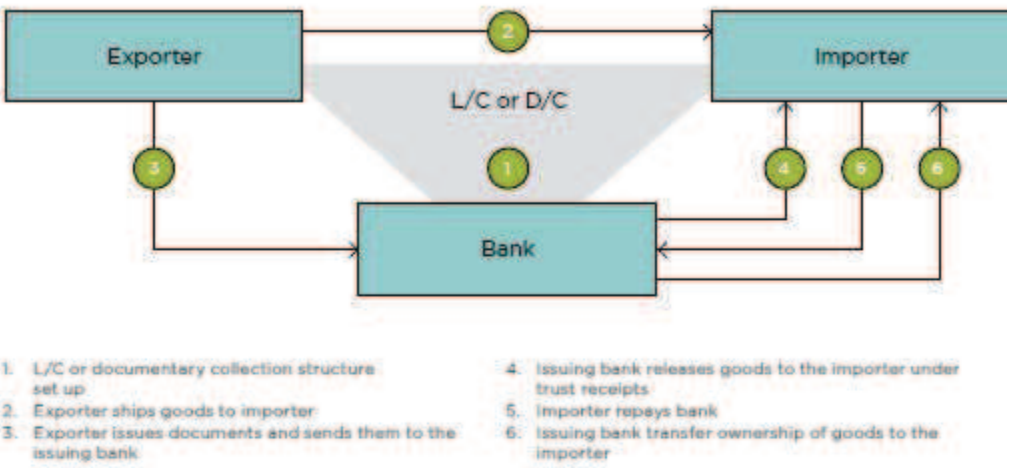


1. L/C structure set up as per import L/C
   - L/C needs to have a "negotiable" clause (i.e. an assurance from the issuing bank that it will reimburse anyone under the terms and conditions of the L/C who "negotiates" against conforming documents)
   - Hence, negotiating bank usually not named in the L/C
2. Exporter presents documents to the negotiating bank as per the terms and conditions of the L/C
3. Negotiating bank checks the documentation and, if compliant, advances cash to the exporter
   The "negotiation" is effectively the purchase of documents from the exporter at a discount
4. Negotiating bank presents the documents to the issuing bank
5. Issuing bank checks the documents and, if compliant, arranges payment to the negotiating bank

Source: ICC (2014)

Loans for imports present another form of trade finance, whereby the bank provides the buyer with a loan to pay for the goods. This allows the buyer to obtain funding during the period where the goods are obtained and sold. The loan is secured by the goods.

Transaction process flow for a loan against import

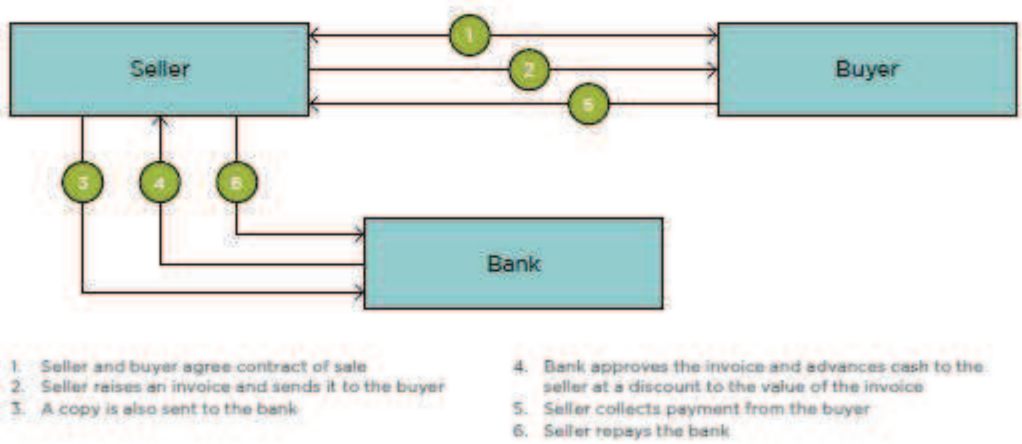


Source: ICC (2014)

6.2.5 Factoring/forfaiting

In a factoring transaction, a bank buys the debt or invoice at a discount from the seller of the goods. Factoring thus relieves the seller from collecting the debt and provides immediate working capital to the seller. The bank subsequently collects the payment from the buyer. Similarly to factoring, under a forfaiting transaction the seller of the good sells the receivable from the sale to a company (the forfeiter), which is typically a specialised finance firm and not a bank. A direct purchase from the seller is called a primary purchase. The receivable then becomes a debt instrument, which can be traded on the secondary market as a bill of exchange or a promissory note.

Transaction process flow for invoice discounting



Source: ICC (2014)

6.3 How big a market?

There is no unique and comprehensive source of data on trade finance. A Committee on the Global Financial System's (CGFS) study estimates that the **global flow of bank-intermediated trade finance in 2011** amounted to around USD 6.5 to 8 trillion, of which USD 2.8 trillion were letters of credit (CGFS (2014)).[21] Banks provide about one-quarter to a third of global trade finance. Moreover, trade finance is predominately US dollar denominated, making the provision of trade finance susceptible to banks' access to funding in US dollars.

As regards **factoring**, in 2014 the total factoring volume for Europe amounted to approximately EUR 1.46 trillion.[22] Europe accounts for 62% of the global factoring volume, whereas Asia is the second largest market, accounting for 26%. In Europe alone, over 90% of the factoring industry is made up of bank subsidiaries owned by commercial banks.[23]

6.4 Relevance of trade finance for non-financial firms

The importance of trade finance varies across firms, particularly in relation to their size. According to an (European Central Bank) ECB survey on the access to finance of enterprises in the Euro area (SAFE), trade credit is a more important source of funding for very small non-financial firms (NFCs) while factoring is more relevant for medium to large NFCs.[24] It should be noted that, due to the short-term nature of trade finance, the available evidence suggests that banks have been able to quickly reduce their exposures to trade finance in times of stress (see Chauffour and Farole (2009), CGFS (2014)).[25] While this is positive from a bank funding risk perspective, the finding also highlights a transmission mechanism of risks from the banking sector to the real economy and the importance of resilient bank balance sheets to facilitating trade in goods. A potential benefit of a stable funding requirement for trade finance could thus be that banks would be less in need of reducing their provision of trade finance during stressed times given that trade finance is backed up with more stable funding. While this may hold from an ex-post perspective, the added costs of a stable funding requirement may increase the cost and thus reduce the overall demand for trade finance. The net benefit of a stable funding requirement for trade finance is thus difficult to quantify. However, given the potentially low RSF factors to be assigned to most widely used trade finance products, i.e. letters of credit, the increase in cost can be expected to be largely muted. Letters of credit may, however, not be suitable for all kinds of trade transactions or customers

[21] See CGFS (2014), *Trade Finance: Developments and Issues, Working Paper No. 50*. There is no data for the EU or the Eurozone available. However, figures for individual EU countries are as follows: Italy USD 249-332 billion, Spain USD 76 to 101 billion, France USD 149-199 billion, and Germany USD 187 billion.

[22] See Factor Chain International 2015.

[23] See Factor Chain International Annual Review 2014.

[24] See ECB (2014) survey on access to the finances of enterprises in the Euro area, November 2014.

[25] See Chauffour and Farole (2009), *Trade Finance in Crisis Market Adjustment or Market Failure? World Bank Policy Research Working Paper 5003*.

and thus higher RSF factors for trade finance products other than letters of credit may have a more material impact on some forms of trade finance.

6.5 Maturity structure of trade finance

The various types of trade finance typically exhibit different maturities that can be broadly categorised in **short-term and medium- to long-term trade finance products**.[26] A further distinguishing characteristic is that some of the most widely used trade finance products are off-balance contingent liabilities. Table 22 below provides an overview classifying trade finance products in off- and on-balance-sheet products. The International Chamber of Commerce (ICC) defines short-term trade finance products as instruments with a maturity of less than one year with a clear link to a specific trade transaction. Specific transactions falling in this category are letters of credit, performance guarantees, and loans for import/export. Based on evidence found in the ICC trade register, Table 22 reports the average as well as the range of maturity across these short-term products.

Table 22: Short-term trade finance products

Product type	Average contractual maturity	Range of average maturity	On/off balance sheet
Export L/C	120	43-379	Off
Import L/C	110	48-158	Off
Performance guarantees	770	281-1105	Off
Loans for import/export	157	66-400	On

Source: ICC (2014)

Table 22 highlights that short-term trade finance products, with the exception of performance guarantees, have an average maturity of typically below one year. Moreover, letters of credit have the shortest term, with an average of 110 to 120 days. In contrast, performance guarantees on average exceed the one-year horizon of the NSFR and can even reach more than three years.

With regard to **long-term trade finance products**, the ICC identifies insurance cover and the provision of guarantees by export credit agencies (ECAs). The range of maturity varies from a few months up to 15 years, with an average tenor of 10 to 15 years.

[26] See ICC Trade Register Report 2014.

6.6 How is trade finance treated under the NSFR?

The Basel NSFR text allows national supervisors to specify the RSF factors for off-balance trade finance-related obligations on the basis of their national circumstances, and specifically mentions **guarantees and letters of credit**.[27]

Both **guarantees and letters of credit** are off-balance-sheet items. A low RSF requirement could be justified by the **low liquidity risk** given that inflows and outflows for trade finance are typically matched, small in value, short in duration, and have an identifiable source of repayment.[28] Moreover, Article 4 (3) of the CRR states that **trade finance is generally uncommitted** and requires satisfactory supporting transactional documentation for each drawdown request, enabling refusal of the finance in the event of any doubt about creditworthiness or the supporting transactional documentation. Repayment of trade finance exposures is usually independent of the borrower, with the funds instead coming from cash received from importers or resulting from proceeds from the sales of the underlying goods.

Based on the evidence provided in Table 22, letters of credit typically have a short maturity, providing justification for relatively low RSF factors for this product.

In contrast, performance guarantees show a significantly longer maturity, reflecting the longer commercial relationship between the trading firms, which may justify a different treatment than letters of credit. The EU Delegated Act for the LCR refers to Article 162 (3b) and Article 4 (80) of the CRR for trade finance products and includes guarantees. For a consistent treatment of trade finance and particular guarantees across the LCR and the NSFR, guarantees may thus need to be treated in line with letters of credit. At the same time, Article 4 (80) of the CRR explicitly defines trade finance products as financial products connected to the exchange of goods and services with a **fixed short-term maturity of less than one year and without an automatic rollover**. While guarantees are explicitly mentioned in Article 4 (80), guarantees may not exhibit a short maturity given that they are typically used for longer term commercial relationships. A possible way forward is to differentiate the treatment of guarantees under the NSFR, conditional on their maturity and using the maturity buckets of the NSFR, treating guarantees with a maturity of less than six months more favourably than longer term guarantees.

With regard to **loans for import and export**, these appear on the bank's balance sheet. In the NSFR, a 50% RSF factor applies to all loans to non-financial firms with a maturity of less than one year, while an 85% RSF is applicable for loans with a maturity of more than one year. While loans for export or import present an exposure of a bank to a non-financial corporate, they are typically backed by a L/C or the goods of the trade. This limits the term of the exposure to the period of the trade transaction, which is short (as confirmed by the evidence in Table 22). However,

[27] See paragraph 47 in BCBS (2014) Basel III: the net stable funding ratio, October 2014.

[28] See CRR paragraph 73. A low credit risk is also reflected in the preferential risk weight granted under the standardised approach under Article 121 (4) of the CRR.

contrary to off-balance-sheet items, loans for export or import need to be funded by banks, supporting the need for adequate backing with stable funding resources. In light of the relatively short maturity, a greater differentiation may be warranted by setting a distinct RSF factor for trade-related loans with a maturity of less than six months while maintaining a 50% RSF for loans above six months and below one year. Moreover, given that loans need to be funded, an RSF factor higher than 5% for off-balance-sheet items seems appropriate from a prudential perspective.

With regard to **factoring/forfaiting**, the purchase of the debt or invoice by a bank (export factor) creates an on-balance-sheet exposure, which needs to be funded. The treatment of the exposure depends on the bank's counterparty in the transaction. If the counterparty is a non-financial firm i.e. the importer, the RSF factors are 50% and 85% for maturities of less than one year and more than one year respectively. However, export factors frequently involve other banks in the importer's country as import factors. As a result, the counterparty in the factoring transaction is a financial institution where the loan is secured by the receivable. For transactions with a maturity of less than six months, six months to one year, and beyond one year, the corresponding RSF factors are 15%, 50% and 100% respectively. It should, however, be noted that subsidiaries of the export factor frequently act as import factors.

Trade finance product	**Basel III NSFR requirement (RSF factor)**
Letter of credit	National discretion
Bank guarantees	National discretion
Loans for export/import	50% less than 1 year; 85% more than 1 year.
Factoring or forfaiting	Exposures to non-financial firms: 50% for less than 1 year; 100% for more than 1 year. For exposures to financial institutions: 15% for less than 6 months' maturity; 50% for residual maturities between 6 months and 1 year; 100% for more than 1 year.

6.7 The LCR treatment of trade finance

The EU Delegated Act for the LCR provides for the competent authority to assign an outflow factor of up to 5% for off-balance-sheet trade finance-related products.[29] With regard to inflows,

[29] Trade finance products falling within the scope of this treatment are specified in CRR 429 and Annex I. Annex I specifies the trade finance off-balance-sheet items, classifying documentary credits and shipping guarantees as medium risk, and classifying documentary credits collateralised by the underlying shipment, warranties, guarantees without the character of credit substitutes, and irrevocable standby letters of credit as medium/low risk.

a 100% inflow factor is assigned to self-liquidating short-term trade financing transactions connected to the exchange of goods and services with a residual maturity **of less than 30 days**.[30] The Basel LCR further includes export and import bills under the contingent funding obligations, which are not explicitly referred to in the CRR Annex I.

6.8 A proposal for the treatment of trade finance under the NSFR

Based on the discussion, Table 23 below proposes RSF factors for trade finance products. The proposal is to apply graduated and low RSF factors for contingent trade finance products, reflecting the low funding risk and the secured nature of the activity. With regard to loans for export/import, the proposal is to apply the Basel NSFR factors for maturities for more than six months while considering the use of lower requirements of between 10-25%, balancing the short-term nature and the need for funding of on-balance-sheet activities.

A distinct treatment may also be necessary for factoring and forfaiting for the same reasons.[31] Given that factoring transactions have maturities reflecting the underlying trade of goods and services, a greater differentiation of RSF could be considered. This may be warranted given the short-term nature of these transactions, which are typically well below six months and are potentially not adequately captured by the broader maturity buckets of the NSFR. For specialised factoring institutions, the NSFR requirements may thus be difficult to meet, particularly when they have a limited deposit base and largely rely on short-term wholesale markets for their funding. At the same time, it should be noted that export factors typically have contracts with exporters, implying automatic rollover of exposures related to factoring, i.e. a longer term commitment to acquiring the receivables from the exporter. Moreover, factoring institutions also engage in maturity transformation in their activities, thus also warranting limits on their funding mismatch. The following options could be envisaged:

- a lower RSF factor for exposures with a residual maturity below six months, e.g. similar to loans for exports and imports;
- a lower NSFR requirement reflecting the insufficient granularity of the NSFR buckets; and
- waiving the NSFR requirement on a solo basis, reflecting that most factoring firms are subsidiaries of banks.

[30] Based on the notifications by NCAs to the EBA under Article 420 (2) of the CRR, most banks currently report using a 5% outflow factor for additional outflows for trade finance off-balance-sheet-related products.

[31] Delegated Regulation 2015/61 explicitly mentions factoring as a business model that may be exempt from the inflow cap, thus receiving preferential treatment.

Table 23: Proposed RSF factors for trade finance products

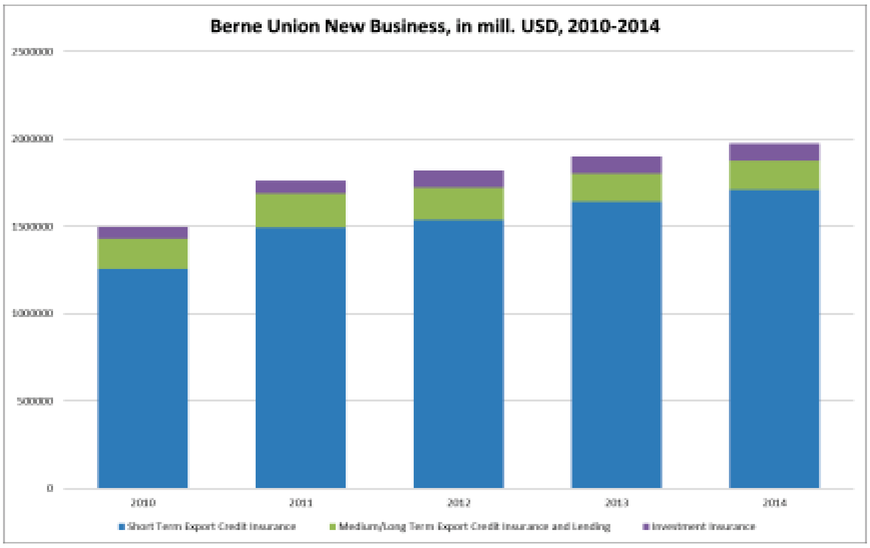
Trade finance product	**< 6 months**	**Between 6 months & 1 year**	**More than 1 year**
Letter of credit	5%	10%	15%
Bank guarantees	5%	10%	15%
Loans for export/import	*(10-25%)*	50%	85%
Factoring or forfaiting	Exposures to non-financial firms: *(10%-25%)* For exposures to financial institutions: 15%	50%	100%

6.9 Export credit agencies

Article 510 (1) of the CRR mandates the EBA to also assess the impact of a stable funding requirement inter alia on trade financing, including lending under official export credit insurance schemes. Article 4 (81) of the CRR defines officially supported export credits as loans or credits to finance the export of goods and services for which an official ECA provides guarantees, insurance, or direct financing.

Figure 17 shows the new business volume of Berne Union members over the period from 2010 to 2014, which has grown from USD 1.5 trillion to around USD 2 trillion.[32] Short-term export credit insurance accounts for 85% of ECA activities.

Figure 17: New business volume



[32] The Berne Union has 50 member companies from around the world. The membership may be private or state linked, small or large. They represent all aspects of the export credit and investment insurance industries worldwide.

The Organisation for Economic Co-operation and Development (OECD) lists ECAs on their webpage, showing that ECAs exist in most EU countries.[33] ECAs can offer a broad range of financing, including:

- the purchasing or insuring of trade receivables;
- discounting of bills of exchange;
- financing of banks' discounting of receivables;
- discounting of bills of exchange or receivables in individual transactions or portfolios; and
- providing bridge financing for a limited period until funds are paid out from an export credit finance transaction.

ECAs can offer their services both directly to exporters as well as to banks intermediating trade finance.[34] ECAs insure credit and political risks as well as the risk of a currency becoming non-convertible. Moreover, the insurance provided by ECAs varies in payment terms (covering several years) and coverage (typically, 5-15% of the risk exposure is not insured).

In terms of the **impact of a net stable funding requirement for banks** on trade financing, including lending under official export credit insurance schemes, a stable funding requirement could potentially increase the costs of the trade finance provided by banks. A decline in the demand for trade finance could also reduce the volume of services supplied by ECAs. However, ECAs can also directly provide their services to exporters and importers, thus potentially offsetting the effect of a reduced intermediation by banks. Consequently, **the overall effect on ECAs of the implementation of an NSFR is unclear and depends on the extent to which ECAs need to rely on the intermediation of banks. At the same time, the overall impact of the NSFR on banks' supply of trade finance can be expected to be largely muted** given the relatively low RSF factors to be assigned for the main trade finance products. Moreover, a more differentiated treatment of export and import loans for a maturity of up to six months may further reduce any impact on the demand for ECAs' services.

[33] See http://www.oecd.org/tad/xcred/eca.htm for details.

[34] See, for example, Euler Hermes at http://www.agaportal.de/en/aga/produkte/uebersicht.html