
World Trade Organization
Economic Research and Statistics Division

**TRADE FINANCE IN PERIODS OF CRISIS: WHAT HAVE WE LEARNED IN
RECENT YEARS?**

Marc Auboin and Martina Engemann: WTO

Manuscript date: October 2012

Disclaimer: This is a working paper, and hence it represents research in progress. This paper represents the opinions of the authors, and is the product of professional research. It is not meant to represent the position or opinions of the WTO or its Members, nor the official position of any staff members. Any errors are the fault of the authors. Copies of working papers can be requested from the divisional secretariat by writing to: Economic Research and Statistics Division, World Trade Organization, Rue de Lausanne 154, CH 1211 Geneva 21, Switzerland. Please request papers by number and title.

TRADE FINANCE IN PERIODS OF CRISIS: WHAT HAVE WE LEARNED IN RECENT YEARS?

Marc Auboin and Martina Engemann¹

Abstract

This paper reviews a number of initiatives taken by public and private institutions aimed at minimizing the impact of the on-going crisis of the financial sector on its ability to supply trade finance to support trade at affordable rates. In doing so, it draws a few policy lessons. One of them is that a relatively stable segment of the financial industry is now regularly hit by the contagion of financial crises, with potentially very harmful spill-overs on global trade through a dry up of its financing. Specific policy measures to restore confidence in this otherwise safe market required a good level of coherence and dialogue between national governments and international and regional development organizations. Lessons from the Asian and Latin American financial crises of the late 1990's have been learned and academia provided input by developing understanding on a previously under-rated topic in the literature. Learning-by-doing and leadership have also been features of the policy response, which altogether had some successes. Still, longer-term challenges remain, such as addressing the structural gaps in the availability of trade finance in low-income countries - ad hoc programs have been designed to fill the gap between the perceived and actual risk of extending trade credit to traders in these countries. Moreover, regulation of the trade finance market needs to continue to take into account its low-risk character, the absence of leverage and its impact on development.

Keywords: cooperation with international financial institutions, coherence, G-20, financial crisis.

JEL classification: F13, F34, F36, O19, G21, G32

¹ Marc Auboin is a Counsellor, Economic Research and Statistics Division, World Trade Organization. Marc.Auboin@wto.org; Martina Engemann is a PhD-student at the University of Munich, Martina.Engemann@lrz.uni-muenchen.de. All views expressed are those of the authors and cannot be attributed to the WTO Secretariat or WTO Members. Thanks are due to Patrick Low, for his support in producing what is still very much work-in-progress.

TABLE OF CONTENT

- I. What is Academia telling us?
 - A. Where did we come from?
 - B. Why is trade finance of special interest for international trade?
 - C. When is which form of trade finance used?
 - D. Which role has trade finance played in the drop in trade during the recent financial crisis?

- II. Policy Actions during Crises
 - A. Drawing from the Asian financial crisis episode: a laboratory experience
 - B. Acting during the 2008-2009 crisis: what steps and what results?

- III. Policy Lessons from the 2008-2009 Crisis
 - A. Lessons to be learned from the management of the 2008-2009 trade finance crisis
 - B. Have G-20 actions fundamentally corrected market imbalance? An uneven recovery
 - C. Where are we now? What should we be heading for?

INTRODUCTION

Since the recent financial crisis, trade finance has become an important topic for both public authorities and researchers. The lack of trade finance is frequently mentioned as one of the reasons for the collapse in trade in 2008. This paper reviews a number of initiatives taken by public and private institutions aimed at minimizing the impact of the on-going crisis of the financial sector on its ability to supply trade finance to support trade, at affordable rates. Trade finance, a rather under-rated financial industry during the expansion of the global financial sphere, had proved to be hit by the contagion of the financial shake-up that started in late 2008 and that continues to unfold. Real economy leaders and political authorities have realized that trade finance was the indispensable oil for trade, and that barriers to accessing it could be as large, if not larger than other barriers to trade.

The academic community, which had devoted only little attention to trade finance until the recent financial crisis, has been relatively responsive to the knowledge gap existing in this area. We review several studies stressing the importance of trade finance for trade and the role of trade finance during periods of crises. Progress on knowledge has been, and is still limited by the lack of comprehensive international statistics on trade finance, with limited hope for immediate improvement.

The lessons of the 2008-09 financial crisis for trade finance and related policy response are only beginning to emerge. The largely learning-by-doing approach of the Asian financial crisis had been replaced by a much more systematic framework of crisis resolution - as recommended in the 2003 papers by the IMF and WTO. First, the detection of market gaps has been improved through the development of snapshot and larger market surveys providing quick indications on imbalances in volumes and prices - in the absence of more elaborated statistics. Second, the design and implementation of support measures has been facilitated by the pre-existence of a contact group gathering all stakeholders (export credit agencies, banks, development agencies, multilateral agencies). Based on diagnosis of this expert group at the WTO, the Director-General of the WTO and President of the World Bank have provided leadership in gathering support from the G-20 to provide temporary and extraordinary crisis-related trade finance support that would be delivered on a basis that respected the need to avoid protectionism and would not result in the long run displacement of private market activity.

The London G-20 trade finance initiative was intentionally designed to be a broad and flexible framework capable of responding effectively to market gaps affecting global and regional trade flows. Learning from past experiences with financial crises, the coordinated approach agreed to in London included an understanding that a menu of instruments should be made available so financing could be delivered to wherever in the trade finance chain it was most needed, with a focus on mitigating risk (aversion), as the perception of risk turned out to be larger than the actual level of risk of extending trade credit, even during the crisis period. Therefore, the G-20 trade finance package consisted largely of guarantees provided by export credit agencies and multilateral agencies against commercial and political risk of trading transactions. Although only few of these guarantees have been called, the package contributed to restore confidence and stabilize trade finance markets fairly rapidly and can largely be viewed as successful. However, challenges to trade finance markets remain. Longer-term public involvement is still required to close the structural market gaps in poor countries - an issue addressed by the G-20 and the Aid for Trade Initiative. Besides,

regulation of the trade finance market needs to continue to take into account its low-risk character, the absence of leverage and its impact on development.

The paper is structured as follows: Section 1 reviews the recent academic literature on trade finance that has emerged since the financial crisis 2008-2009. Section 2 looks at policy actions during the recent financial crisis, building upon the experience of former crisis periods. Section 3 attempts to derive policy lessons to be learned from the management of the 2008-2009 trade finance crisis.

I. WHAT IS ACADEMIA TELLING US?

A. Where did we come from?

Until the global financial crisis in 2008-2009, only few researchers took an interest in international trade finance. On the one hand, there were models on international trade but they were not considering or integrating financial frictions - i.e. they were considering perfect capital markets, assuming that the cost of external finance are the same as internal finance (Melitz, 2003); on the other hand, there was a fairly large literature on inter-firm trade credit, such as on supplier credits and cash-in-advance, but it did not expand into its international dimension (see Fisman and Love (2003) for a review of that literature).

One of these studies is the one by Love et al. (2007), which analyses the question whether trade finance collapses in times of crisis. Therefore, Love et al. (2007) study the use and extension of trade credits by firms in Indonesia, South Korea, Malaysia, the Philippines, and Thailand during the Asian financial crisis and Mexican firms during the 1994 Peso devaluation. Trade credits, in their study, can be used for domestic as well as international transactions and the authors do not explicitly consider internationally active firms. They find that in times of liquidity problems firms being cut out from bank financing cannot find a substitute in the form of trade credit granted by other firms. This means that in times of crisis, the scarcity of financing affected all sources of that financing (be it bank credit or inter-firm credit). Under the redistribution theory of Meltzer (1960) and Nilsen (2002) in which firms redistribute liquidity in the form of trade credit throughout the supply chain, the general drying up of trade credit would affect the whole supply chain.

B. Why is trade finance of special interest for international trade?

Only recently, researchers have started to consider financial frictions in models of international trade. There are two main reasons for which international trade may carry larger financial constraints than domestic trade. First, international transactions involve a higher level and number of risks, such as the exchange rate risk, the political and non-payment risks. Second, internationally active firms have larger financing needs, explained in particular by the time lag between actual production of the good and its delivery.

Manova (2010) and Chaney (2005) have been the first to incorporate financial constraints into models of international trade. In their models, they argue that when there is imperfect contract enforcement, there is a higher mark-up on external finance due to a higher non-payment risk. Hence, firms that originally would have been fit to export may not be able

to do so because of that higher cost of external finance. This is especially the case in countries with a low level of financial sector development and for sectors with a high financial vulnerability. Using firm-level survey data from the World Bank for nine emerging and developing countries, Berman and Héricourt (2010) find that access to finance increases the probability of becoming an exporter. In addition, a country's financial development also affects firms' probabilities to become exporters.

Having established the importance of access to finance for international trade transactions, an open question in the literature has been whether specific trade finance instruments can help to overcome financial constraints. Letters of credit, supplier credit, and cash-in-advance are heavily used in international trade. Using firm-level survey data, Eck et al. (2012) show for German firms that 96 % of all exporters use supplier credit. Furthermore, exporters and importers also use a higher share of supplier credit on their inputs and receive a higher share of sales as advance payments than domestic traders. Another question is why internationally active firms use trade credits so intensively?

Eck et al. (2012) argue that inter-firm trade finance provides a quality signal which reduces uncertainty of trading internationally. Trade credit has the inherent quality of improving information on trading partners, thereby facilitating access of the firms involved to credit in general. Engemann et al. (2012) show that for financially constrained and internationally active firms, supplier credits may also lead to more bank credits. Thus, trade credits may not only be seen as substitutes to traditional bank financing but also as complements. In addition to letters of credit, supplier credits and cash-in-advance, firms often insure their export credits. Two papers are looking at the relationship between export credit insurance and trade (Van der Veer (2010) and Felbermayr and Yalcin (2011)), both finding a positive correlation between the two.²

C. When is which form of trade finance used?

Trade finance consists of various instruments. Thus, in order for policies on trade finance to be effective, one has to know when which form of trade finance is used in international trade. One of the main challenges is that detailed data on how different types of transactions are financed are not readily available. Thus, empirical studies mainly have to rely on whatever data exists, aggregate sectoral, country-level data or firm-level survey data.

Recent papers on the optimal choice between different payment modes focus on cross-country differences in contract enforcement, cost and availability of trade finance. When a good is exported to a country with weak contract enforcement, the best option is to use cash-in-advance (see Antràs and Foley, 2011, and Schmidt-Eisenlohr, 2012). In case of transactions between two countries with weak contract enforcement, the use of letters of credit helps reduce any incentive to default (moral hazard). This incentive may exist when the importer receives the good before payment. Moral hazard in that case may be reduced through guarantees by the bank of the importer on its capacity to pay. The idea is that enforcement between banks is easier than between two trading partners (Olsen, 2010). Furthermore, trading partners want to minimize financing costs. Thus, the financing mode depends on which firm has lower financing costs, i.e., better access to bank credit (Ahn, 2011).

² Besides the two more recent contributions, Moser et al. (2008) and Egger and Url (2006) also analysed export credit insurance data.

These theories have been confirmed empirically. Using panel data on bilateral trade flows, Schmidt-Eisenlohr (2012) finds that two countries trade less with each other if financing costs are higher. Moreover, this effect increases with the distance to the destination country, which in turn increases the time between production and payment (partly because of transportation lead times). In such cases, credit is in higher needs, and hence is more expensive.

With respect to the choice between financing instruments, Glady and Potin (2011) find that firms have a preference for letters of credit in their trade transactions with countries with a high risk of default. Based on their analysis of SWIFT data, it appears that letters of credit are used four times more intensively when exporting to countries with a high commercial default risk than countries with a low commercial default risk. Furthermore, letters of credit would be used more intensively when the parties involved are located in countries with higher financial market development, because fees are likely to be lower.

Antràs and Foley (2011) analyse the effect of institutions on the choice between different financing modes. They use transaction data from a single U.S. based exporter (of frozen poultry), which includes financing terms by transaction. Three facts emerge. First, the most commonly used financing term for this particular company is supplier credits and cash-in-advance. Only about one fifth of the value of the transactions involves bank-intermediated financing. Second, the institutional environment of the destination country has a large impact on the financing terms used. Prime exports to countries with weak contract enforcement are more likely to involve cash-in-advance. But, third point, as trading partners establish a tighter relationship, cash-in-advance is less likely to be used.

To put it in a nutshell, recent research stresses that the institutional context and financial sector development are two important factors driving the choice of trade financing instruments, on which government may wish to focus to enhance the availability of trade finance.

D. Which role has trade finance played in the drop in trade during the recent financial crisis?

During the financial crisis 2008-2009, global trade outpaced the drop in GDP by a factor that was much larger than anticipated under standard models. Among the potential culprits, economists have identified trade restrictions, a lack of trade finance, vertical specialization, and the composition of trade as main explanations. This section only focuses on trade finance.

Amiti and Weinstein (2011), for example, use firm-level data from 1990 through 2010 to ascertain the role of credit in the Japanese financial crises. With their data, which matches firm's exports to the health of their banks, they establish a causal link between the two. They find, for example, that firms working with banks which suffered greatly saw their foreign sales drop more than their domestic sales. The point estimates also suggest that the trade finance channel accounts for about 20 % of the decline in Japanese exports in the financial crisis in 2008-2009. The authors explain why, as indicated above, exporters, more than any other producers, are more reliant on credit in general, and trade credit and guarantees in particular. Since a small share of world trade is paid cash or in advance, exporters rely on

their banks and insurance companies to advance working capital to produce the goods for export and/or assume the payment, counterparty, transport, political, exchange rate and all other risks involved in trade transactions. Furthermore, multinational enterprises and firms that export mostly by air are less affected by an impairment of their main bank's health. The intuition for the former is that a large part of multinational's trade is intra-firm which exhibits less risk. The latter can be explained by the relation of the time needed for shipment and the firm's working capital needs. Thus, the shorter the lag between production and payment, the less finance is a problem.

Using data on US imports, Chor and Manova (2012) also find that credit conditions were one channel through which the crisis led to the collapse in trade. Countries with tighter credit markets, measured by their interbank interest rates, exported less to the US during the recent financial crisis. This effect is especially strong for financially vulnerable industries. Financially vulnerable industries are categorized by Chor and Manova (2012) as those that require extensive external financing, have limited access to trade credit, or have few collateralizable assets. The central result of the paper is that financially vulnerable industries became especially sensitive to the costs of credit during the peak of the financial crisis.

Similarly, Bricongne et al. (2012) find that sectors that are highly dependent on external finance have been most severely hit by the financial crisis and experienced the largest drop in their export activity. Using monthly data for individual French exporters at the product and destination level, the authors can also test whether firms with heterogeneous characteristics have been affected differently by the crisis. For example, small and less productive firms may be more adversely hit by the crisis than larger and more productive firms. Bricongne et al. (2012), however, find that small and large firms have been similarly hit by the crisis. Hence, programmes to increase the availability of trade finance do not have to be directed to certain groups of firms but rather to specific industries.

The above findings are also supported by Iacovone and Zavacka (2009) – a paper that looks at the impact of bank credit on exports more generally during crisis times. Their approach is to exploit the fact that various export sectors differ in their need for external financing. Given this, the most exposed sectors should be hit harder during a banking crisis. Relying on data from 23 banking crises episodes involving both developed and developing countries during the period 1980-2000 the authors separate the impact of banking crises on export growth from that of other exogenous shocks (i.e. demand shocks). Their findings show that during a crisis the export of sectors more dependent on external finance grow significantly less than other sectors. However, this result holds only for sectors depending more heavily on bank finance as opposed to inter-firm finance. The effect of banking crises on exports is robust and additional to external demand shocks. The effect of "demand-side" shocks is independent of and additional to that of a banking shock, and is particularly significant for sectors producing durable goods.

This finding tends to contradict the finding of Love et al. (2007) that trade credit cannot serve as a substitute to bank credit in times of crisis. An explanation for these different results may be that Iacovone and Zavacka (2009) focus on exporters whereas Love et al. (2007) do not explicitly look at international transactions. Consequently, in the local banking crises analysed by Iacovone and Zavacka (2009) exporters may still have access to trade credit from their international trading partners unaffected by the crisis. However, in times of a

worldwide financial crisis, such as the recent crisis in 2008-2009, firms relying on trade credit also have been affected by the crisis as shown by Chor and Manova (2012).

In order to explain the effect of a lack of trade finance on trade compared to GDP during the recent crisis theoretically, Ahn (2011) develops a model that portrays the different nature of international relative to domestic trade finance. According to the model, banks interact more with domestic firms. Therefore, due diligence is easier for domestic firms than for foreign firms. Hence, from the banks perspective international transactions are more risky than purely domestic transactions. This explains why firms only use letters of credit for international transactions and not for national transactions. With a letter of credit the exporter's bank only has to screen the exporting firm located in its country and the importer's bank screens the importer located in its country. Thus, although the transaction is international, no bank has to screen a foreign firm. Following Ahn (2011), part of the disproportionate drop in trade during the financial crisis can be explained by banks first cutting international trade finance and by the exclusive use of letters of credit in international trade.

Some papers, however, do not find that trade finance played a role in the great trade collapse of the recent financial crisis. For example, Paravisini et al. (2011) find that the increased cost of working capital affects overall production, be it for the domestic market or export markets. Exports are hence not affected more than domestic output. Levchenko et al. (2011) and Behrens et al. (2011) also find that trade credit did not play a significant role in the large fall in trade relative to GDP in the recent financial crisis using data for the US and Belgium.

To conclude, the recent financial crisis and especially the disproportionate drop in trade raised the interest of researchers in the topic of trade finance. The studies have stressed the importance of trade finance for international transactions. Particularly during the financial crisis, the empirical evidence seems to suggest that a lack of trade finance was one of the reasons for the decline in trade.

II. POLICY ACTIONS DURING CRISES

A. Drawing from the Asian financial crisis episode: a laboratory experience

For decades, the financial sector has efficiently supported the expansion of world trade by delivering mostly short-term trade credit (80 percent of total trade finance according to IMF-BAFT (2009)) in the forms of either structured finance (letters of credit or the like using the merchandise as the collateral) or open account liquidity supplied against receivables. This low-risk, low-default segment of credit also generated relatively low fees per transaction, as a recognition of its relatively routine character. Long-term trade finance involving larger, possibly multi-year contracts involved more complex services, including trade credit insurance, and hence brought higher fees to those willing to finance and insure transactions. Part of this longer-term end of the market involves government guarantees, either to cover the political risk of financing the transaction or to encourage "strategic" exports. Disciplines to limit the degree of subsidies involved in these transactions are negotiated by the OECD, and grandfathered under the WTO Agreement on Subsidies and Countervailing Measures.

Trade finance markets have been resistant to financial crises since the 1960s, partly because of a relatively well-established methodology and preferred treatment in handling officially guaranteed trade credit in the case of sovereign default. In these cases, commercial claims of private nature were in parallel "handled" by the London Club - generally in the form of restructuring, the interest of both governments and private sector banks being that the flow of trade should not be interrupted by efforts to restructure (or reschedule) old debt. This is necessary to keep trade flowing and the balance of payments turning around. While officially guaranteed credit represented an important part of trade between developed and developing countries in the 1970's and 1980's, private markets have expanded more rapidly and took over the short-term trade finance segment as the expansion of local banking sectors allowed for the establishment of global inter-bank links helping to connect traders from the "North" and the "South". These links have been temporarily disturbed, in a massive way, during the Asian and Latin American financial crisis of the late 1990s, when foreign "correspondent" banks reconsidered existing exposures to local banks in the context of a solvency crisis affecting local financial institutions. In the most extreme cases, credit lines for available financing have been interrupted and outstanding debt left pending. In crisis-stricken countries, the stoppage of trade finance interrupted trade flows as well, delaying the recovery of the trade-reliant economies to redress their balance-of-payments.

In the specific case of Indonesia, for example, the high import content of exports (over 40 %) explained why the export growth was seriously affected by the difficulty of financing imported inputs for use in its export sectors. To alleviate the problem, the Indonesian government and Central Bank extended guarantees to foreign banks for letters-of-credit opened by Indonesian banks, and they encouraged a steering committee of private borrowers and lenders to find an arrangement to maintain trade finance facilities and settle arrears. Episodes of credit crunches in Asia and later in Latin America raised uncertainty in private markets in the absence of reliable information about risk, specifically country risk and individual risk.

Standard economic theory in such extreme circumstances indicates that the demand for credit emanating from companies with good credit ratings should meet supply at a higher price. In periods of acute crisis, however, this supply did not exist in certain countries, raising suspicion of market failure. In Indonesia, the total value of trade finance bank limits fell suddenly from \$6 billion from 400 international banks to \$1.6 billion from 50 banks (World Trade Organization, 1998). In order to avoid a prolonged interruption of regional and international trade flows, targeted intervention by public or semi-public entities took place in the middle of the crisis to restore a minimum of confidence in trade markets, even before exchange rates stabilized.

Market participants regarded the ad-hoc solutions proposed by regional development banks as successful in terms of having suffered no defaults or losses while keeping minimum cross-border trade finance available. Both the Inter-American Development Banks and the Asian Development Bank extended guarantee facilities to international banks confirming local banks' letters of credit. Some export credit agencies from developed countries provided short-term insurance for credit extended during the crisis period on bilateral trade. Urgency trade finance schemes, which were largely inspired by the trade finance facilitation program of the European Bank for Reconstruction and Development (EBRD), have become more standardized after the Asian crisis.

The common element of all these ad-hoc mechanisms was to offer risk mitigation to induce endorsing entities to accept commitments to pay. Although some local financial systems in East Asia had collapsed, in many cases the underlying trade links had not been broken - and contracts illustrated the existence of a solvable demand. Risk mitigation devices such as guarantees of payment in case of default proved to be an effective tool for the implementation of contracts. In fact, trading goods across borders became during this period all the more attractive, both for sellers and buyers, the former having excess capacities to sell, the latter being in a position to buy at a cheaper price after the massive devaluation of local Asian currencies. The reduction in local production costs measured in international currencies had not escaped international investors during this period, as foreign direct investment continued - despite the massive outflows of other forms of capital – to flow in countries such as Indonesia and Korea. In a situation of dysfunctional financial markets, risk "mitigators" were hence an important tool allowing for the continuation of trade and investment links, and hence to the recovery of the "real economy".

The fact that a credit crunch could affect both exports and imports to the point of stoppage, as was seen in Indonesia for several weeks, has induced the international financial and trading communities to be concerned about the availability of trade finance. This translated into a "debriefing" exercise involving the IMF, World Bank, WTO, regional development banks and private sector actors, aimed at identifying possible "market failures", "best practices" and cooperative action in crisis response (IMF, 2003). During this period, WTO Members reported to the fifth WTO Ministerial Conference in Cancún (2003) that "based mainly on experience gained in Asia and elsewhere, there is a need to improve the stability and security of sources of trade finance, especially to help deal with periods of financial crisis. Further efforts are needed by countries, intergovernmental organizations and all interested partners in the private sector, to explore ways and means to secure appropriate and predictable sources of trade finance, in particular in exceptional circumstances of financial crises".³

The introversion exercise led to a discussion as to whether, and when, the trade finance market could be prone to market failure, notably during episodes of financial crisis. Box 1 summarizes some of the arguments used in IMF and WTO documents produced at the time.

Box 1: Trade finance markets: market failure? How and when?

The IMF and WTO analysed the factors behind the fall in trade finance during the financial crisis of emerging economies in Asia and Latin America in the period of 1997-2001. The IMF attributed such declines to "the response by banks as leveraged institutions, to the lack of insurance when it was needed, and to herd behaviour among banks, official export credit agencies (ECAs), and private insurers." Moreover, the declines were often associated with weak domestic banking systems. The IMF also points to a relatively concentrated market for trade finance: "the consolidation of the international banking sector in recent years may also have had a bearing on the decline in trade finance during recent crises".

³ WTO document WT/WGTDF/2.

The IMF comments on the lower incentives than in the past for banks to maintain trade credit lines in periods of stress: "In the 1980s, banks provided both long-term finance and trade financing. Thus, banks' interests were aligned with those of countries in crisis to the extent that they had incentives to provide trade credit in order to limit the scale of economic dislocation, and thereby protect the value of their long-term claims. In modern capital markets, with long term finance provided predominantly by bondholders (who do not provide trade finance) banks' willingness to maintain trade credit lines in difficult times has been significantly weakened. In addition, developments in international finance in recent years have blurred the boundary between trade credit and financial credits thereby reducing international banks' confidence that payment priority would be granted by a crisis country to trade credit over other types of short-term financing".

The IMF acknowledges implicitly an element of market failure as "the contraction in trade finance [has been] widely perceived to be more than would be justified by fundamentals and the risks involved [...]. The extent to which trade credit lines [have been] withdrawn was unprecedented, especially in countries (such as Brazil) with virtually no defaults on such credit lines and where policies were supported by a substantial international financial package". The Fund explained it by

- "[...] the interaction between perceived risks and the leveraged positions of banks,
- the lack of sufficient differentiation between short-term, self-liquidating trade credits, and other categories of credit exposure by rating agencies,
- herd behaviour among trade finance providers such as banks and trade insurers, as decision making by international providers of trade finance during crises is often dominated by perceptions rather than fundamentals [an acknowledgement of failures in risk appraisal in periods of stress],
- and weak domestic banking systems."

These factors, already identified in 2003, do not differ fundamentally from the factors at play a few years later in the 2008-2009 financial crisis of developed economies.

In its own analysis of the 1997-2001 financial crisis episode, the WTO points to the widening of the gap between the actual levels of risks and the perceived levels of risks during periods of financial crisis, as well as the confusion between the company risk and the country risk, which, altogether, led foreign banks to cut exposure for all customers rather than to adopt a differentiated approach. "Through a "natural selection" process, one could have imagined that banks would have concentrated their portfolio on their best (and most solvable) customers, while taking advantage of the higher prices of credit. Instead, the contraction of trade finance seems to have been beyond what the "fundamentals" would have suggested, thereby raising suspicions, as indicated above, about the existence of some market failure". The "herd behaviour" resulting in a general withdrawal by international banks from any type of activity regardless of the type of lending and of risk has been encouraged by the lack of transparency and adequate information regarding companies' balance sheets in the countries concerned, as well as worrying signals sent by credit rating agencies, which, after having failed to detect the onset of the crisis, had to rapidly downgrade the affected countries severely. While trade finance instruments help to mitigate commercial risks, there are still a number of risks to be borne, including the exchange rate risk. During the currency crises of 1997-1998, large swings in exchange rates have increased the perception of risk in engaging in commercial transactions, which, in the region, were essentially invoiced in dollars. The WTO had already detected some of the inherent weaknesses of financial arrangements supporting

supply chains, whereby "the plight of those dependent on bank finance in times of crises is heightened by the fact that major buyers in the biggest export markets of emerging economies are increasingly demanding contracts on an open account basis. Suppliers have to secure their own financing." In periods of crisis, buyer-supplier open account arrangements are severely disrupted, and typically suppliers are left at the worst possible period to find liquidity for production and trade, a phenomenon which will be observed again in 2008-09. This is in line with the empirical findings of Love et al. (2007) discussed in section 1.A.

Source: IMF (2003), Trade Finance in Financial Crises: Assessment of Key Issues, available at www.imf.org; and WTO (2004), Improving the Availability of Trade Finance During Financial Crises, Discussion Paper no. 6, available at www.wto.org;

One clear lesson from the Asian financial crisis is that in periods prone to herd behaviour and a lack of trust and transparency, all actors, including private banks (which account for the bulk of lending in the trade credit market), export credit agencies, and regional development banks, should pool their resources as much as is practicable (Auboin, 2009).

In its 2003 paper, the Fund had already suggested a "framework for trade finance in crisis resolution" a number of ideas such as risk-sharing between multilateral development banks, export credit agencies and private insurers; multilateral development banks' trade finance facilities, "properly designed and implemented, [could] be effective in mobilizing additional private sector funding during a period of heightened risk aversion"; central banks could also provide temporarily "liquidity to the export sector by purchasing export bills of exchange from export enterprises", "provide guarantees to enhance the acceptance of L/C issued by domestic banks", or "make foreign exchange available for appropriately documented pre- and post-shipment export trade finance transactions". The WTO's 2003 paper also recognized the case for public intervention during the Asian financial crisis, and indicated that "ad-hoc solutions developed by regional development banks are regarded by many analysts and market participants to have been successful, in terms of having suffered no default or losses while keeping minimum cross-border trade alive". It called for "urgency" trade finance schemes to become more standardized across multilateral development institutions. The WTO had also identified regulatory issues to be dealt with, as a way to "secure a greater availability of trade finance in the long-term". The paper pleads for "a better interaction between the regulatory framework and market conditions, one aspect of the problem [being] the implementation of new "Basel II" rules, [with] some significant increase in the risk weighting for short-term trade finance activities, from a level which has already been considered excessive for this relatively low-risk activity".

Another lesson from the crisis of the late 1990's was the very poor state of international statistics on trade finance. As indicated by the IMF (2003) "data on trade credit are not readily available, complicating efforts to carry out comprehensive empirical analysis. In the cases where data are available, they are often only partial. As a result, many participants of trade finance suggested a systematic effort involving country authorities, multilateral institutions as well as the private sector to be launched to collect data to facilitate future empirical research". Virtually no efforts have been made by statistical compilers and

higher authorities to redress the situation (see next section). It appeared that the continued absence of comprehensive and reliable data on trade finance flows would hence require strong links between the main players involved in trade finance, at least to be able to make a reasonable assessment of the market situation through the collection of informed views and partial statistics and survey undertaken by the ones and the others.

This task of collecting such information has been a key aspect of the work of the World Trade Organization (WTO) Expert Group on Trade Finance. The critical importance of having accurate information helps to explain why the same players asked the WTO to once again gather experts as of 2007. Such experts were needed to assess the market situation as it deteriorated rapidly and to listen to the analysis of market practitioners as to the reasons for the deterioration. Experts could also examine the types of instruments and cooperative arrangements that worked during the previous crisis and that would fit with existing conditions and plan contingencies. Further, they could mobilize both private- and public-sector institutions to form a partnership ensuring that institutions with excess capacities had an opportunity to meet the needs of those with insufficient funds.

All in all, many of the problems detected in the post-Asian crisis analysis (herd behaviour, increased gap between the level of risk and perception of risk, fragility of the market due to a relatively limited number of leading banks, confusion between country and counterparty risk, lack of visibility on the market situation due to the lack of statistics on short-term movements) have re-emerged in the cocktail of factors which characterized the global tensions in trade finance markets in 2008-2009.

This is not to imply that the trade finance market itself is fragile, imbalanced, and subject to inherent market failure, but rather to suggest that trade finance market suffers from the contagion of crises originating in more volatile segments of financial markets, such as currency and asset derivatives markets - as during the 1997-2001 and 2008-2009 crises. Trade finance markets being for the most part of short-term nature, the cost of funding for 90 or 120-days trade facilities depends directly on inter-bank funding costs for instruments of similar maturities. In other words, tensions in international inter-bank markets are reflected on the whole spectrum of short-term securities, including short-term trade credit facilities.

Many of the ad-hoc solutions that have been devised during the Asian crisis and that have been analysed as being successful in the IMF and WTO documents, have been used again in the crisis response to the 2008-2009 crisis, albeit in a more systematic and planned way. In that sense, the Asian and Latin American crises have provided for useful "laboratory experiments" of crisis response measures, ranging from, as listed in Box 1, central bank guarantees and provision of foreign exchange to trade, opening up of discount windows for trade bills, intervention by ECAs, and guarantees programs operated by regional development banks. The "return from experience" offered by the IMF and WTO in 2003 greatly contributed to expanding some embryonic programs put in place in Eastern Europe and Asia, such as trade finance facilitation programmes. During the recovery and expansion period of the global financial sector (2001-2008), the IFC, the Asian Development Bank, and the Inter-American Development Bank have inaugurated such facilities. The EBRD expanded its own substantially.

B. Acting during the 2008-2009 crisis: what steps and what results?

A sharp and rapid deterioration of market conditions

While trade finance had remained rather stable throughout 2007 and the beginning of 2008, it became clear that in the course of 2008 the overall liquidity squeeze on money markets was hitting trade credit supply, as the refinancing of such credit became more difficult with the liquidity squeeze, and as lending was also affected by the general re-assessment of risk linked to the worsening of global economic activities. Beginning in the fall of 2008 and continuing into 2009, indications of shortages in the trade credit market came from anecdotal evidence provided by key bankers to the WTO Expert Group on Trade Finance. Such evidence indicated in particular that the secondary market for trade bills had dried up and that liquidity was too tight to sustain lending for trade in chaotic interbank conditions.

Contrary to the Asian crisis period, market "thermometer" existed in the form of market survey, produced by both the International Chamber of Commerce's (ICC) Banking Commission and the Bankers Association for Trade and Finance, a sub-set of the US banking association. By the time of the London G-20 Summit, in April 2009, the surveys had provided a confirmation of the deterioration of trade finance markets. For example, the 2009 BAFT survey covering the period from the third quarter of 2008 to the first quarter of 2009 had indicated with a relatively high degree of confidence that the flows of secured or unsecured trade finance to developing countries had fallen more than the flows of trade in 2008, calculated on a year-on-year basis. In intra-developed countries' trade, the incidence of liquidity shortage had been smaller, as flows of trade credit seemed to have fallen less than trade (Auboin, 2009).

Since trade finance has to compete like any other segment of the credit market for an equal or reduced amount of liquidity, the price of transactions had increased sharply under the combined effects of scarce liquid resources to back-up loans and a re-assessment of customer and country risks. Spreads on 90-days letters of credit have increased from 10 to 16 basis points on a normal basis to 250 to 500 basis points for letters of credit issued by emerging and developing economies. Even under stress, it is hard to believe that the safest and most self-liquidating form of finance – with strong receivables and marketable collaterals – could see its price increase by a factor of 10 to 50. Apart from the reduction in the demand for trade, the main reasons provided by banks for the decrease in credit lines and increase in spreads were the application of more stringent credit criteria, capital allocation restrictions, and reduced inter-bank lending. In volume terms, indications were given that leading banks were unable to meet the demand from their customers (exporters) for new trade operations, leaving a supply gap estimated at \$20 billion per month. Market specialists noted that with demand for trade credit far from satisfied, the prices for opening letters of credit far outweighed the normal reassessment of risk. On an annualized basis, the WTO and other specialists estimated this "supply" gap in the market had been, at this period (during the peak of the crisis), between \$200 and \$300 billion.

Surveys indicated that developing countries in particular suffered from severe shortages in trade finance, as liquidity problems spread to the money markets of South Asia, Africa, and Latin America. According to the International Monetary Fund's (2009) Survey of Private Sector Trade Credit Developments, finance for imports from South Asia, Korea, and

China fell dramatically at the end of 2008. This added to the structural problems already faced by local banks in certain developing countries under normal circumstances including the relative lack of depth of money markets, lack of capacity to handle large volumes of trade credit, and lack of reliable information on the creditworthiness of customers. In periods of crisis, these factors all lead to difficulties in partnering with developed countries willing to accept the counterparty risk. The ICC 2009 Survey also pointed out that intense scrutiny of underlying guarantees by some banks led to higher rates of rejection of letters of credit (almost 75 % under the first submission). Prospects for trade finance in 2009 were negative, with the general view that tight credit conditions may further reduce access to trade finance.

Box 2: Trade finance in Sub-Saharan Africa during the crisis

A survey by the African Development Bank suggests that trade finance in Sub-Saharan Africa has become considerably more expensive, involving shorter maturities and contractions in scale. Trade finance transactions have collapsed by over 50% since the beginning of 2009 in Africa (out of total annual turnover of \$100 billion), Nigeria being the hardest hit. Nigerian banks have demanded that importers pay in foreign exchange, making funding even more expensive and imposing constraints on local importer's working cash balances. Ghanaian banks on the other hand have charged local importers even more to facilitate various trade transactions and have observed a shift toward the use of pre-paid letters of credit at a time where shortages in foreign exchange in the domestic market have reached their peak. These banks also charge for documentary collection and collateral management arrangements.

The problem with domestic banks in many low income countries, including Sub-Saharan Africa is that they have limited, if at all, international reputation. In light of the current financial crisis, international banks now do not confirm clients' letters of credit unless they are prepaid, have cash or any other tangible collateral. International banks no longer focus on working with second tier banks and have shifted their attention to their longstanding relationships with renowned and internationally accredited local banks. Additionally, international banks have cancelled overdraft facilities without previous warning. Here, local banks that have limited international reputation are forced to seek access to trade finance through first-tier competitors and hence, restricting their access to trade finance. As a result, demand for trade credit is barely met, considering the increasing prices for opening letters.

As indicated in the section below, the international community has rapidly understood that import and export financing had become an issue for concern in Africa. Part of the "crisis response" package focused on this region; the creation by the World Bank of the IFC's Global Trade Liquidity Pool in 2009 was clearly aimed at offering liquidity sharing arrangement for financing trade transactions in Africa's most challenging areas. The African Development Bank set aside US \$1bn for supporting trade finance transactions, a good share of it came as a direct contribution to the IFC's trade liquidity pool. Other multilateral agencies stepped in, in particular to "close" commodity export finance "deals", such as the Islamic Development Bank.

Statistical Problems

Why did the international community rely on surveys and not on a comprehensive set of international statistics for trade finance? The answer lies in the failure of the international statistical system to produce a comprehensive series of trade finance statistics. This failure had already been observed during the Asian and Latin American crisis. Even since, global short-term cross-border movements from the banking and non-banking sectors have increased significantly. By contrast, the statistical apparatus did not improve much in its ability to capture fast-growing short-term capital flows, in particular by distinguishing between trade credit and other cross-border flows. The difficulty to distinguish between various short-term instruments has remained one of the largest sources of “statistical” black holes in the international economy, in particular balance of payments, and cross-border banking statistics. For example, by the time of the financial crisis, total balance of payments transactions for short-term capital flows amounted to roughly US \$30 trillion, with inaccurate information as to its composition by instruments ("spot" instruments such as certificate of deposits, commercial paper and letters of credit, against "derivative" instruments such as credit and other derivatives").

While being only second to the proper collection of data, the WTO has encouraged the development of survey-based data on trade finance by private sector professional organizations since 2008, as a substitute for the gaps left by the public sector. Besides, market surveys are of great value for decision making both at the market and government levels during periods of crisis, as they provide a rapid photograph of market trends - compared to statistics that typically would come at a later stage with more details, but perhaps too late for meaningful policy reaction. Gradually, the WTO has encouraged the various producers of market information (the BAFT, the IMF, the ICC, the Berne Union and SWIFT) to include such information into a single publication such as the ICC's global trade finance survey, in order to allow for consolidated analysis of these various signals and trends. All in all, while information was clearly insufficient with regards to the statistical obligations falling on countries, public authorities who had been in charge of "crisis management" were much better informed on market developments, thanks to the promptness of such surveys, than during the Asian and Latin American crises, when no such information was available.

Policy actions

While there is a legitimate debate as to the extent of the gap of unfunded trade transactions during the 2008-2009 crisis, all surveys and information available pointed to the fact that trade finance had been, like any other short-term financial instruments, hit by the liquidity crisis in the fall of 2008 and the subsequent general re-evaluation of counterparty risk on all elements of banks' balance sheets. In this process, beyond the cyclical downturn, there were credible concerns that the effects on trade finance could yield longer-term supply-side driven shortages, due to a private sector ‘pull back’, which could inflict further damages to trade volumes in the short-to-medium term. It may have been that the financial crisis of 2008-2009 had brought a worldwide shrinkage of available financing larger than the smaller decline in trade finance, but the difference between leverage finance and unleveraged finance is that the decline in unleveraged finance may lead to an equivalent reduction of real economy transactions (on the basis of a one-to-one relationship between the value of the merchandise and its financing), which is not a certain, immediate outcome when highly leveraged products unfold.

The process which led the G-20 Summit in London (April 2009), in response to these concerns, to ensure the availability of support for \$250 billion of trade finance for 2 years, has been well explained and documented (Auboin, 2009; Chauffour and Malouche, 2011). The commitment to support the provision of short-term trade finance was one element in a wider set of fiscal, monetary, and financial actions undertaken by the international community to support the continued functioning of international trade and financial markets during a period of acute stress. The G20 agreed to provide temporary and extraordinary crisis-related trade finance support that would be delivered on a basis that respected the need to avoid protectionism and would not result in the long run displacement of private market activity.

The London G-20 trade finance initiative was intentionally designed to be a broad and flexible framework capable of responding effectively to market gaps affecting global and regional trade flows. Learning from past experiences with financial crises, the coordinated approach agreed to in London included an understanding that a menu of instruments should be made available so financing could be delivered to wherever in the trade finance chain it was most needed. This trade finance "package" could be summarised as allowing greater co-lending and risk co-sharing between banks and public-backed international and national institutions. This included:

- The increase in credit insurance and risk mitigation capacity by export credit agencies, which have stepped in with programmes for short-term lending of working capital and credit guarantees aimed mainly at small and medium enterprises.

- The regional development banks (RDBs) and the International Financial Corporation (IFC) have significantly increased average capacity under trade facilitation programmes before the G20 Meeting and after. The increase was manifest in credit guarantee products, and risk participation agreements.

- Some RDBs also provided liquidity windows as part of their trade finance facilitation programs. In a period of liquidity squeeze, the demand by banks for such access increased significantly, particularly for transactions involving the most challenging markets. To this aim, the IFC reinforced its global trade finance facility through the introduction of Global Trade Liquidity Pool (GTLP), allowing for a 40-60 % co-lending agreement between the IFC and commercial banks. The IFC jump-started the fund with \$5 billion, matched by \$7.5 billion in commercial bank funding, hence financing up to \$50 billion of trade transactions in two years.

Above and beyond the G-20 trade finance package, central banks have been providing for foreign exchange resources to traders that needed it, as the peak crisis period was marked by a US dollar shortage that reflected the tensions in the US money market. Central banks with large foreign exchange reserves have been able to supply foreign currency to local banks and importers generally through repurchase agreements (Korea). Other central banks opened temporarily "discount windows" for local traders willing to discount foreign trade receivables and other bills (Japan). The US Federal Reserve Board helped central banks that did not have sufficient reserves in US dollars with the conclusion of 14 swap agreements, aimed at facilitating the payment of trade transactions (Auboin, 2012). Most of these mechanisms were time-bound and waived when market conditions returned to normal. It considerably helped

banks and importers in developing countries acquire scarce foreign exchange resources to conduct trade operation at one of the most difficult times of recent history.

The G-20 established a "follow-up" working group aimed at monitoring the implementation of the London trade finance initiative. The package being demand-driven, the idea was to monitor commitments and utilization rates, partly to make sure that it did not last longer than necessary. Data from the working group showed that most of the support initially promised for a period of two years had been front-loaded, and hence used during the first year of the initiative. The average utilization rate for the amount of trade finance made available through this G20 initiative declined to about 40 % in the second half of 2009, down from 68 % in the first half.⁴ This suggested that the supply of trade finance from commercial sources had improved in many markets (as confirmed later by the ICC (2009) and IMF-BAFT (2009) market surveys) in the course of 2009. All in all, some \$140-150 billion have been used out of the total commitment of \$250 billion. Given these developments, it was recommended by the expert group that G-20 Members begin to scale back their support after the G-20 Summit in Toronto, as part of their broader strategies to exit extraordinary fiscal, monetary and financial measures taken to meet the challenges of the 2008-2009 recession.

While global trade and trade finance markets improved, several factors that led to the development of the G20 trade finance initiative continued to negatively affect certain regions and submarkets.

III. POLICY LESSONS FROM THE 2008-2009 CRISIS

A. Lessons to be learned from the management of the 2008-2009 trade finance crisis

One feature of the design of the G-20 London trade finance package is that it did not aim at "reinventing" the wheel, and relied heavily on the lessons learned from the Asian and Latin American crisis, building on the return from experience of 2003-2004, which led to the expansion of a global network of trade finance facilitation programs across the globe, the strengthening of the export credit business as a counter-cyclical tool, the systemization of central bank support to provide the necessary foreign exchange for oiling transactions, and the creation of new instruments adapted to this particular crisis, such as the Global Liquidity Trade Pool. Crisis management was hence much more systematic than the scattered albeit useful initiatives taken during the Asian crisis - precisely drawing on the experience of what had worked and not during that earlier crisis.

A question that can be posed legitimately is whether weaknesses in the trade finance market required a specific support package. These questions were indeed posed within the G-20 and were subject to some internal debate. After all, during 2009, the US Federal Reserve System had injected a total of roughly \$900 billion in additional liquidity into the US money market to fund banks, so why would trade finance be treated differently and benefit from a tailor-made package? The answer was two-fold.

⁴ The report can easily be downloaded from the following address:
<http://ebookbrowse.com/gdoc.php?id=202337817&url=487dac3594743ea795bc2abf14c6f405>

First, most of the additional liquidity provided by the Federal Reserve has not been intermediated by banks in the form of new loans. Instead, the liquidity supplied in the market helped ease money market conditions and improve liquidity ratios. Broadly put, part of the liquidity has been "banked" back at central banks. Hence, trade transactions did not benefit from the increased liquidity support decided by many central banks during this period. This was unfortunate, as trade transactions remained safe during the banking crisis. The request for finance is supported by established contracts between importers and exporters. In case of default, the merchandise can be sold internationally (according to the ICC registry on trade finance, the recovery rate on default exceeds 60 %).

Second, the problem during the crisis has been one of risk aversion, not so much liquidity. The perception of risks increased disproportionately relative to the actual level of risk. For many bank-intermediated trade transactions, financial institutions have been "running for cover", hence asking for guarantees and credit insurance - at a time when the overall credit portfolio of some banks was no longer trusted. The request for increased guarantee capacity has been largely anticipated by the G-20 when it designed the trade finance package with the support of the WTO and the World Bank, following an analysis of the market situation with the WTO Expert Group on Trade Finance. Most of the "additional capacity" committed under the G-20 package consisted of guarantees provided by export credit agencies for the middle and high ends of the markets (transactions typically above \$1 million) and by RDBs and the IFC for the low-end (lower amounts).

Another perfectly legitimate question when it comes to public intervention is whether part, or all, of the package constituted "moral hazard". The potential problem being that once public intervention increases the availability of trade finance, market actors would behave differently (paying less attention to risk, etc.). The concept of moral hazard is one linked to the existence of a market failure (even a temporary one), and whether such a market failure needed to be addressed through or may also be caused by public intervention. With respect to market failure, an interesting comparison can be made between the factors mentioned in section II.A. during the Asian crisis, and that of the 2008-2009 crisis. In addition to the failures of credit rating agencies and other market surveillance mechanisms to detect early signs of deterioration of banks' general soundness, several sources pointed, in the 1997-2001 Asian and Latin crisis, to the unavailability of adequate information regarding companies' and banks' balance sheets, in particular as a result of distorted information on banks stemming from weak supervision and the multiplication of off-balance sheet operations (WTO, 2003).

These observations look very familiar when looking at the driving factors of the 2008-2009 banking crisis, this time for developed countries' banks. Similar factors (excessive off balance sheet exposures, incorrect expectations with respect to banks profitability, distorted information to evaluating the behaviour of investors) have triggered considerable confusion in inter-bank markets, allowing for the crisis (and rumour) to spread and raising doubts on the real creditworthiness of financial institutions. As previously, trade finance was hit by contagion of the same factors having been responsible for another crisis. Under rational expectations, markets should have all elements to "read" future events, including the rationalization of (poor) past experiences. Obviously, this was not the case.

Moral hazard would indeed exist if trade finance had been part of the problem, and not only hit by contagion. By no measure, trade finance had been a source of leverage or any other imbalance for the financial sector. Moral hazard problems could also have arisen if

RDBs and other actors had been intervening systematically and without limit, which was not the case. From the onset, the G-20 package was time bound (a maximum duration of two-years), and demand-based. The monitoring group reviewed the situation before each subsequent G-20 meeting, and, realizing that most of the support had been front-loaded, recommended the discontinuation of the initiative. Another possible pitfall would have been to allow for the bulk of the support to benefit to the largest banks, instead of developing countries banks and traders. This risk of "picking winners" was heightened by the fact that the market is very concentrated and that the largest banks could have been the main beneficiaries. This did not prove to be true, as in most contributing countries, exports credit agencies have been focusing their support on SMEs with specifically designed programs, while by nature RDBs focused on small transactions, small "tickets". Even if some large banks were allowed to share risks in challenging markets under these programs, the volume of such operations remained marginal relative to total commitments. All in all, the \$ 150 billion in guarantees and working capital granted under the package is a small amount compared to the estimated \$6-7 trillion-a-year trade finance market.

B. Have G-20 actions corrected market imbalance? An uneven recovery

Improvement in main markets

After nearly nine months of tensions, indications provided by the Expert Group on Trade Finance led to believe that trade finance market conditions had improved continuously between the middle of 2009 and early 2011, with falling prices and increasing volumes of transactions, albeit with some volatility around an upward trend.⁵ Recovery has been uneven across countries though. The recovery has been evident in the main "routes" of trade, in line with the recovery of trade demand and improved financial market conditions within North America, Europe, Asia, and between Asia and the rest of the World. In these areas, spreads had fallen, albeit not to pre-crisis levels, with a difference between traditional trade finance instruments (letters of credit), which prices fell to low levels on the "best" Asian risks, and so-called funded trade finance products (on-balance sheet, open-account transactions) which higher prices reflected relatively large liquidity premia – the latter prices being still up to 40-50% higher than before the financial crisis.

By contrast, traders in low-income countries remained subject to the greatest difficulties in accessing trade finance at affordable cost, particularly import finance. The same applied to small and medium sized enterprises in developed countries, which relied on small or medium-sized banks. This situation was explained by a banking environment in which capital had become scarcer and the selectivity of risks greater.

The structural difficulties in the most challenging markets

Hence, the overall improvement in markets has been concealing an uneven and more complex situation than could be observed at first sight. It was characterized by the Expert Group on Trade Finance as follows: (1) large corporates using the trade services of large banks in both developed and developing countries have been benefitting from higher volumes of finance and lower costs; (2) smaller but solid corporations using the services of tier one

⁵ Regular reports by the WTO Expert Group on Trade Finance can be found in the WTO website under the WT/WGTDF/W paper series.

local banks around the world have also been in a position to benefit from the recovery of trade demand, to the extent that such local banks had stepped back into trade finance (which seemed increasingly to be the case, although with some constraints such as the low availability of dollars in local markets); and (3) a third group comprising small businesses in small countries having limited financial sector capacity to "oil" trade, has increasingly been requesting support, in particular from regional development banks and the IFC. One could include in such wide group the small businesses relying on second or third tier banks in higher income countries, which could also face difficulties in accessing trade finance.

This third group has been the prime target of trade finance facilitation programmes run by RDBs and the IFC. Still, though, these institutions were facing questions internally about the continuation of their risk-mitigation programs in favour of trade in developing countries, on the grounds that the peak of the financial crisis was behind them and that other priorities required attention and resources. The representatives of these institutions made the point that, although their programs had been beefed up during the crisis, the demand for their products had never been so high even after the crisis, and several institutions had either reached their capacity limits or budget ceilings. Excess demand by the private sector could hence not be satisfied. Their view was that they needed to stay engaged because they were serving customers meeting structural constraints in accessing trade finance on affordable terms – due to well-known weaknesses of local financial sectors, aggravated by the current withdrawal of international banks from some of the poorest countries. Their programs also contributed to bridging the gap between the actual level of commercial risk, which was very low or non-existent, and the high perception of risk, which deterred large commercial banks from operating in these countries. By doing due diligence on local banks, multilateral development banks contributed to filling the information gap that prevented endorsing and investing banks from emerging regions of the world to invest in other developing countries.

The persistence of remaining gaps in trade finance in challenging markets led G-20 Leaders in Seoul (November 2010) to commission, under paragraph 44 of the Seoul Summit Document, a report to the WTO on these gaps and on the effectiveness of trade finance programmes to address it. The report has been well received at the G-20 meeting in Cannes (November 2011). The report is summarized in the box below. It revealed in particular that only a third of the 60 poorest countries in the world benefited regularly from the services offered by regional development banks (RDBs) and the IFC. The lack of risk mitigation programs in these countries partly explained the very high fees and collateral requirements paid by local importers. Such high fees were out of line with the risk incurred - even trade finance. Given the strong demand for these programs and their development orientation, the G-20 supported the report's recommendations that the priority was to strengthen trade finance facilitation programs where they existed, and create some where they did not yet exist. From a geographical point of view, priorities were in Africa and Asia.

Box 3: Assessment by the WTO on the effectiveness of trade finance programs towards low-income countries

The WTO report transmitted to the G-20 Summit in Cannes concludes that despite the efforts deployed by public-backed institutions during the recent financial crisis, the demand by developing countries for risk mitigation in the trade finance area outweighs the supply by far. International banks have clearly been withdrawing from financing trade of low-income

countries - apart from large commodity contracts - and emerging countries' banks have not yet filled that gap because of a lack of information on their counterparties in these countries. Hence, in poor countries, prices for trade loans are high and confirmation of letters of credit difficult, with no relationship to the risk of default of payments. In this context, the risk mitigation capacity of the World Bank and other Multilateral Development Banks was considered to be insufficient to meet an increasing demand. Due to resource constraints, these institutions are facing trade-offs: supporting SME financing in systemically important low to middle income countries (Bangladesh, Pakistan, Nigeria, Sri Lanka, and Kenya) or extending operations in smaller but equally poor countries. They were not in a position to do both. Existing resources allowed only one third of IDA-eligible countries to benefit from the support of these facilities in a meaningful way. Based on this diagnosis, the WTO report to the G-20 concludes that there was a structural need to continue to support the accessibility of IDA-eligible countries under the existing programmes, which provide very effective risk mitigation. Specific recommendations are made, some of which are already being positively considered. The report recommended in particular that Members of the G-20 ask the MDBs and the World Bank Group to expand, as a matter of priority, the risk limits of their trade finance facilitation programmes to allow for greater support to countries where local financial institutions cannot support trade and traders. Two regions were a priority: Africa and Asia.

Since the spring of 2011, positive steps had been taken in the direction of implementing some of the report's main recommendations. For example, the Board of Directors of the International Finance Corporation (IFC) of the World Bank Group had decided to further increase the limit of intervention of its trade finance facilitation programme, conditional upon review of the development impact of such measure. This facility supports SME trade in poor countries primarily. In addition, the Board of Directors of the IFC agreed to create a warehousing and supply-chain facility for SMEs in these countries (to overcome the difficulties for SMEs to be integrated in the system of financing of global value chains). The EBRD decided to expand the scope of its trade finance programme towards countries from the Middle-East and Northern African region (MENA), and the Asian Development Bank extended the sunset clause of the trade finance programme to 2013.

The WTO report also recommended the creation of a permanent trade finance facility at the African Development Bank (AfDB), similar to those operated by sister organizations. The structural risk of the financial sector was a major limitation to the expansion of Africa's trade capacity, at a time when the demand for its commodity and non-commodity exports has been recovering. Since the G-20 Summit in Cannes, the creation of such a facility at the AfDB has made significant progress, with plans that the facility would be fully operational at the end of 2012.

Source: Report by the WTO to the G-20 in Cannes on the effectiveness of trade finance programs towards low-income countries which can be accessed online www.g20-g8.com/g8-g20/bank_objects/RAPPORT_DWG.pdf.

Challenging regulatory requirements

In a joint letter sent to the G-20 Leaders in Seoul, the Heads of the World Bank Group and the WTO raised the issue of the potential unintended consequences of the Basel II and III frameworks on the availability of trade finance in low-income countries. While trade finance

received preferential regulatory treatment under the Basel I framework, in recognition of its safe, mostly short-term character, the implementation of some provision of Basel II proved difficult for trade. The application of risk weights and the confusion between country and counterparty risks have not been particularly advantageous for banks willing to finance trade transactions with developing countries partners. Basel III added to these requirements a 100% leverage ratio on off-balance-sheet letters of credit, which are primarily used by developing countries. At a time when more risk-adverse suppliers of trade credit revised their general exposure, the application of more stringent regulatory requirements raised doubts about profitability and incentives to engage into trade finance relative to other categories of assets. Besides, the feeling increased that the preferential prudential status granted under Basel I to trade finance in relation to such other categories of assets was being significantly reduced; in other words, the comparative advantage of supplying trade finance, a relatively low-profitability business, was being diminished.

As a result, and in the overall framework of paragraph 41 of the Seoul Summit Declaration, these issues have been discussed by the Basel Committee on Banking Supervision's Policy Development Group and the institutions concerned with trade finance, notably the WTO, the World Bank and the International Chamber of Commerce (ICC).

In the context of the WTO Expert Group on Trade Finance, the Director-General of the WTO encouraged the ICC's banking commission to collect the necessary data, and for the dialogue with banking regulators on trade finance to be fact-based. Since 2010, the ICC has been able to collect data on loss default for trade finance operations, with the world's main banks contributing. This "trade finance loss register" indicates that the average default rate on international trade credit operations is no higher than 0.2 % globally, including during the recent period of financial crisis. This is lower than most domestic lending activities.

Aggregate data were passed on to the Basel Committee on Bank Supervision to feed the discussion with its partners. According to the ICC, World Bank, and WTO, the data indicate that cross-border trade finance is a safe financial activity, including in low-income countries. While it was fully justified to re-regulate the financial sector in view of recent difficulties, trade finance ought not to become an unintended casualty.

The Basel Committee on Banking Supervision discussed which measures of the prudential regulation affecting trade finance was most detrimental to trade and trade finance availability, with a particular focus on the beneficial effects for low income countries. Proposals were made by the WTO and the World Bank to the Committee with a view to waive the obligation to capitalize short-term letters of credit for one full year, when its average maturity was according to the registry between 90 and 115 days (consistent with the maturity of the vast majority of international trade transactions). This measure was "blocking" hundreds of millions of US \$ of unnecessary capital that could be used to finance more trade transactions. During the G-20 Meeting in London, at the initiative of the Director-General and of the President of the World Bank, the G-20 had already asked for a temporary relief from this regulatory measure to support trade in developing countries. The temporary relief will now be made permanent. Hence, 90 to 115-days trade letters of credit will be capitalized for that appropriate maturity.

C. Where are we now? What should we be heading for?

A lot has been done in the recent years to address some of the challenges of trade finance, including implementing a support package for trade finance markets during the period of crisis, helping fix trade finance in low-income countries through programs filling some of the gap between perceived and actual risk, and ensuring a fair prudential treatment for low-risk trade finance markets. The latter is an important step in contributing to the overall objective of turning the financial system towards a more sustainable model of banking.

So long as the international banking system has not recovered to normal market conditions, trade finance will be, at times, under some pressure. For example, market pressures were felt at the end of 2011 on liquidity and capital linked to the simultaneous implementation of Basel II and III regulatory requirements. Several European banks shed assets to restructure their balance sheets and meet new ratios. Short-term trade finance is prone to fast deleveraging because banks may just not renew credit lines when they self-liquidate, to achieve a real reduction in commitments or a need for resources (liquidity or capital). Several large market makers in Europe have announced a reduction of trade finance activities in the course of 2012. Moreover, US dollar funding remained an issue outside the United States, although swap agreements helped alleviate the situation. All in all, by mid-2012, the trade finance market has remained characterized by a greater selectivity in risk-taking and flight to "quality" customers. In that environment, the lower end of the market is still struggling to obtain affordable finance, with the smaller companies in the smaller, poorer countries most affected. With respect to conditions in different regions, the relatively easy market situation in Asia contrasts the difficult situation felt in Europe (Western and Eastern), the MENA region, and some African regions (Sub-Saharan Africa, for example).

The G-20 Summit in Cannes asked that data on trade finance be improved. While no quick fix could be achieved at the level of compilation by countries, the WTO and its partners agreed that one survey per year to be produced by the ICC, with input by organizations such as SWIFT and the Berne Union was sufficient in normal times. Should market circumstances change, the ICC and its partners could undertake rapidly a snapshot survey to take the "temperature" of the markets. With respect to loan-level data collected to feed the dialogue with regulatory agencies ("the registry"), the current ICC registry containing short-term trade finance data will soon be enriched by long-term data.

With respect to regulatory matters under the Basel framework, the dialogue with the Basel Committee will be pursued on elements of Basel III regulation that were technical and prioritized. What mattered was to insist on the development impact of the industry (contributing to the expansion of trade and hence economic growth), its low risk character (trade finance being safer than major sovereign risks), and the absence of leverage (one-to-one relationship with the transaction on merchandise). The WTO Director-General has recently indicated that G-20 meetings would continue to keep an eye on the availability and affordability of trade finance and support multilateral development institutions in their commitment to facilitating this activity, bearing in mind its development dimension. The permanent existence of a market gap for poor countries required long-term public involvement, without which crisis intervention would be meaningless.

CONCLUSION

The recent financial crisis, with its spill-over effects on trade finance and the policy-makers' reaction to it, has shown that measures to strengthen the supply of trade finance were much more coordinated than in previous crises periods, as policy-makers had learned from former experiences. The WTO and its Director-General played a key role as a facilitator and a coordinator of the international response, in particular at the level of the G-20. The 2008-2009 crisis period creates its own lessons on how trade finance reacts in periods of crisis and its impact on international trade. This time, academics and researchers have been able to provide theoretical and empirical input to the stock-taking exercise.

Improving the understanding of the trade finance market is all the more important as the international banking system has yet to fully recover and challenges to trade finance will remain in the recent future. First, traders in low-income countries still face the greatest problems to obtain affordable finance for international transactions. Second, regulation of the trade finance market needs to continue to take into account its low-risk character, the absence of leverage and its impact on development. Third, the availability of data on trade finance requires improvement, as was stressed by the G-20 Summit in Cannes, in order to enable policy-makers and institutions to better assess the status of the trade finance market and to incentivize more research in the field of trade finance. The WTO, along with its partners, will continue to work in these directions in the months to come.

BIBLIOGRAPHY

Ahn, JaeBin (2011), "A Theory of Domestic and International Trade Finance", IMF Working Papers, No 11/262.

Amiti, Mary and David E. Weinstein (2011), "Exports and Financial Shocks", *The Quarterly Journal of Economics* (2011), Vol. 126 (4), pp. 1841-1877.

Antràs, Pol and Fritz Foley (2011), "Poultry in Motion: A Study of International Trade Finance Practices", NBER Working Paper no. 17091.

Auboin, Marc and Moritz Meier-Ewert (2003), "Improving the Availability of Trade Finance during Financial Crises", WTO Discussion Paper 2, Geneva.

Auboin, Marc (2009), "Boosting the Availability of Trade Finance in the Current Crisis: Background Analysis for a Substantial G20 Package", Centre for European Policy Research, Policy Insights no. 35, June.

Auboin, Marc (2012), "Use of Currencies in International Trade: Any Changes in the Picture?", WTO Working Paper ERSD-2012-10.

Behrens, Kristian, Gregory Corcos, and Giordano Mion (2011), "Trade Crisis? What Trade Crisis?", CEPR Discussion Paper no. 7956.

Berman, Nicolas and Jérôme Héricourt (2010), "Financial factors and the margins of trade: Evidence from cross-country firm-level data", *Journal of Development Economics*, Vol. 93, pp. 206–217.

Bricongne, Jean-Charles, Lionel Fontagné, Guillaume Gaulier, Daria Taglioni, and Vincent Vicard (2012), "Firms and the global crisis: French exports in the turmoil", *Journal of International Economics*, Vol. 87, pp. 134-146.

Chaney, Thomas (2005), "Liquidity Constrained Exporters", University of Chicago, mimeo.

Chauffour, Jean-Pierre and Mariem Malouche (2011), "Trade Finance During the Great Trade Collapse", The International Bank for Reconstruction and Development/ The World Bank.

Chor, Davin and Kalina Manova (2012), "Off the cliff and back? Credit conditions and international trade during the global financial crisis", *Journal of International Economics*, Vol. 87, pp. 117-133.

Eck, Katharina, Martina Engemann, and Monika Schnitzer (2012), "How Trade Credits Foster International Trade", CEPR Discussion Paper no. 8954.

Egger, Peter and Thomas Url (2006), "Public Export Credit Guarantees and Foreign Trade Structure: Evidence from Austria", *The World Economy*, Vol. 29, No.4, pp. 399-418.

Engemann, Martina, Katharina Eck, and Monika Schnitzer (2011), "Trade Credits and Bank Credits in International Trade: Substitutes or Complements?", BGPE Discussion Paper no. 108.

Felbermayr, Gabriel and Erdal Yalcin (2011), "Export Credit Guarantees and Export Performance: An Empirical Analysis for Germany", Ifo Working Paper no. 116.

Fisman, Raymond and Inessa Love (2003), "Trade Credit, Financial Intermediary Development, and Industry Growth", *The Journal of Finance*, Vol. 58, No. 1 (Feb., 2003), pp. 353-374.

Glady, Nicolas and Jacques Potin (2011), "Bank Intermediation and Default Risk in International Trade – Theory and Evidence", ESSEC Business School, mimeo.

Iacovone, Leonardo and Veronika Zavacka (2009), "Banking Crises and Exports: Lessons from the Past", Policy Research Working Paper Series 5016, The World Bank.

ICC (2009), "Rethinking Trade Finance 2009: An ICC Global Survey", ICC Banking Commission Market Intelligence Report, Document No. 470-1120 TS/WJ 31 March 09.

IMF (2003), Trade Finance in Financial Crisis – Assessment of Key Issues, Seminar Document, IMF Conference on Trade Finance on 15th May, 2003, Washington, DC.

IMF-BAFT Trade Finance Survey (2009), "Survey Among Banks Assessing Current Trade Finance Environment".

Levchenko, Andrei A., Logan T. Lewis, and Linda L. Tesar (2010), "The Collapse of International Trade During the 2008-2009 Crisis: In Search of the Smoking Gun", NBER Working Paper no. 16006.

Love, Inessa, Lorenzo A. Preve, and Virginia Sarria-Allende (2007), "Trade credit and bank credit: Evidence from recent financial crises", *Journal of Financial Economics*, Vol. 83, pp. 453–469.

Manova, Kalina (2012), "Credit Constraints, Heterogeneous Firms, and International Trade", Stanford University, mimeo.

Melitz, Marc (2003), "The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity." *Econometrica* 71, pp. 1695-1725.

Meltzer, Allan H. (1960), "Mercantile Credit, Monetary Policy, and Size of Firms", *The Review of Economics and Statistics*, Vol. 42, No. 4 (Nov., 1960), pp. 429-437.

Moser, Christoph, Thorsten Nestmann, and Michael Wedow (2008), "Political Risk and Export Promotion: Evidence from Germany", *The World Economy*, Vol. 31, No. 6, pp. 781-803.

Nilsen, Jeffrey H. (2002), "Trade Credit and the Bank Lending Channel", *Journal of Money, Credit and Banking*, Vol. 34, No. 1 (Feb., 2002), pp. 226-253.

Olsen, Morten (2010), "Banks in International Trade: Incomplete International Contract Enforcement and Reputational Concerns", Harvard University, mimeo.

Paravisini, Daniel, Veronica Rappoport, Philipp Schnabl, and Daniel Wolfenzon (2011), "Dissecting the Effect of Credit Supply on Trade: Evidence from Matched Credit-Export Data", NBER Working Paper no. 16975.

Schmidt-Eisenlohr, Tim (2012), "Towards a Theory of Trade Finance", University of Oxford, mimeo.

Van der Veer, Koen (2010), "The Private Credit Insurance Effect on Trade", DNB Working Paper no. 264.

WTO (1998), Trade Policy Review of Indonesia, Geneva.