T.C.
İSTANBUL ÜNİVERSİTESİ
SOSYAL BİLİMLER ENSTİTÜSÜ
İNGİLİZCE İKTİSAT ANABİLİM DALI

YÜKSEK LİSANS TEZİ

TRADE FINANCE AND MULTILATERAL DEVELOPMENT BANKS IN TIMES OF CRISIS: THE CASE OF EMERGING MARKETS

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İSTANBUL, 2020

ÖZ

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MUHAMMED ÖZBEY

Dünyadaki farklı kriz deneyimleri dış ticaretin finansmanına, özellikle Sınır Piyasalar (Frontier Markets) ve Yükselen Piyasalar'da (EMs), müdahale ihtiyacı doğurmuştur. Bu çalışma beş büyük Çok Taraflı Kalkınma Bankası'nın (MDB) dış ticaretin finansmanını kolaylaştırıcı programlar (TFFPs) olarak adlandırılan girişimlerini, EM'lere ve kriz zamanlarına odaklanarak incelemektedir. Çalışmanın amacı hem nitel hem de nicel veriler kullanarak, TFFP'lerin krizle başa çıkmadaki başarılarını ve bu sürecin piyasada nasıl gerçekleştiğini göstermektir. Bunları analiz etmek için aktörleri, kurumları ve piyasayı içeren bir etkileşim şeması oluşturulmuştur. Sonuçlar TFFP'lerin, dolayısıyla MDB'lerin, hem kriz zamanlarında hem de kriz dışı zamanlarda özellikle EM'lere etkili bir katkı sağladığını ortaya koymaktadır.

Anahtar Kelimeler: Dış Ticaretin Finansmanı, Yükselen Piyasalar, Kriz, Çok Taraflı Kalkınma Bankaları, Ticaret

ABSTRACT

TRADE FINANCE AND MULTILATERAL DEVELOPMENT BANKS IN TIMES OF CRISIS: THE CASE OF EMERGING MARKETS

MUHAMMED ÖZBEY

Different crisis experiences all over the world created a need for trade finance intervention, especially in Frontier and Emerging Markets (EMs). This study examines five major Multilateral Development Banks' (MDBs) trade finance initiatives, namely trade finance facilitation programs (TFFPs), by focusing on EMs and crisis times. The aim of the study is, by using both quantitative and qualitative data, to demonstrate the TFFPs' success in coping with crisis and how this process takes place in the market. The results suggest that TFFPs, thus MDBs, provide an effective additionality to countries, especially EMs, both during and out of crisis.

Keywords: Trade Finance, Emerging Markets, Crisis, Multilateral Development Banks, Trade

PREFACE

It is always very hard for graduate students to choose a subject for their master thesis. However, as a bank officer in international banking department and a graduate student in economics department, this process was relatively easier for me since I wanted to combine my professional work with the academic study.

Trade finance is an unexplored area within academia. Although it is in the very center of international banking and finance as it supports both industry and trade, academics did not sufficiently give attention in this area except only a few. In times of crisis, especially after 2008, both effects of crisis on trade finance and measures taken to cope with these effects constitute important subjects for academics.

A considerable number of studies in trade finance use econometric approach. In the beginning, I also planned to create a study with econometric approach by analyzing the relationship between payment methods for international trade focusing on Letters of Credits and export performance of Turkey. However, after a while, the study has evolved in a systemic analysis of trade finance market focusing on EMs, MDBs and Crises. That is how this thesis has come into existence. I hope this study will contribute to the trade finance literature by being the first systemic and unique analysis of trade finance.

I'm very grateful to Banu Demir and Arhan Ertan for their advices and sparing their precious time during the completion of this study. I appreciate Institute of International Finance (IIF) staff for their kind assistance to grant me access to the relevant data. I want to thank to my friend Ömer Faruk Peksöz for his recommendations on the text in a short span of time. I also thank Taner Akan for his advice on the approach of this study.

After all, I'm very happy to thank my beloved wife Elif Zeynep. She provided me with the most suitable environment-along with her tasty coffees-to work on my thesis. This work would not have been completed without her support.

İstanbul, 2020

Muhammed Özbey

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ABBREVIATIONS

ADB	:	Asian Development Bank
AfDB	:	African Development Bank
BAFT	:	Bankers Association for Finance and Trade
BIS	:	Bank for International Settlements
BPS	:	Basis Point
BRICS	:	Brazil, Russia, India, China, South Africa
CB	:	Central Bank
CBR	:	Correspondent Banking Relationship
CGFS	:	Committee on the Global Financial System
DFI	:	Development Finance Institution
EBRD	:	European Bank for Reconstruction and Development
ECA	:	Export Credit Agency
EDC	:	Export Development Canada
EFIC	:	European Australian Business Council
EFIL	:	Export Finance Intermediation Loan
EM	:	Emerging Market
EURIBOR	:	The Euro Interbank Offered Rate
FX	:	Foreign Exchange
FY	:	Fiscal Year
G20	:	Group of Twenty
GDP	:	Gross Domestic Product
GTFP	:	Global Trade Finance Program
GTLP	:	Global Trade Liquidity Program
IBRD	:	International Bank for Reconstruction and Development
ICC	:	International Chamber of Commerce
ICSID	:	International Centre for Settlement of Investment Disputes
IDA	:	International Development Association
IDB	:	Inter-American Development Bank
IEG	:	Independent Evaluation Group

IFC	:	International Finance Corporation
IFI	:	International Financial Institutions
IFSA	:	International Financial Services Association
IMF	:	International Monetary Foundation
IO	:	International Organization
ITFC	:	International Islamic Trade Finance Corporation
L/C	:	Letter of Credit
LIBOR	:	London Inter-Bank Offered Rate
LIC	:	Low Income Country
LPGS	:	Liquidity Program for Growth and Sustainability
MDB	:	Multilateral Development Bank
MIC	:	Middle Income Countries
MIGA	:	Multilateral Investment Guarantee Agency
MT	:	Message Type
P/N	:	Promissory Note
RPA	:	Risk Participation Agreement
SCFF	:	Soft Commodity Finance Facility
SDG	:	Sustainable Development Goals
SME	:	Small and Medium Enterprise
SWIFT	:	Society for Worldwide Interbank Financial Telecommunication
TFI	:	Trade Finance Initiative
TFLOC	:	Trade Finance Line of Credit
TFP	:	Trade Facilitation Programme
TFFP	:	Trade Finance Facilitation Program
TFRP	:	Trade Finance Reactivation Program
UN	:	United Nations
WB	:	World Bank
WTO	:	World Trade Organization

INTRODUCTION

Despite all the significance of trade finance and Multilateral Development Banks (MDBs) as global actors, especially from a systemic analysis or political economy perspective, not only trade finance itself but also the MDBs' relation with trade finance have not been properly researched in academy. There have been several studies on this subject after the devastating crisis in 2008, but these are not in-depth studies.

Rather than attempting a general evaluation of trade finance in times of crisis, this work will try to contribute to the field by focusing on the EMs, MDBs, TFFPs[1] and their effects on the market from a bank-intermediated trade finance perspective. For the crisis periods, 1997 Asian crisis and 2008 global crisis are in the foreground since trade finance has attracted attention after these crises, especially after 2008. Besides, literature regarding trade finance are almost unavailable before 1990s.

Definition and categorization of pre-crisis and post-crisis periods may be blurred in some cases. Pre-crisis period refers to the absence of continual market problems. Post-crisis period is a process which lasts until the normalization of markets. In terms of trade finance getting closer of financing premiums to the pre-crisis ranges, the reestablishment of credit limits, and the absence of unusual shortage denote the end of the post-crisis period. In this sense as G20's call for trade finance in April 2009 was for two years (G20, 2009), it can be argued that post-crisis period ended at the end of 2010 or early 2011. According to ICC Survey results, 2010 is the recovery year for trade finance (ICC, 2011), although the 2008 crisis left serious problems to the world economy that have made themselves felt until today. Apart from structural recoveries, trade finance-related indicators returned to normal values in 2010. L/C prices started to calm down from 150-250 bps to 70-150 bps in big EMs when compared with 2009 (WTO, 2010: 17).

[1] Whereas TFFP is the name of the Inter-American Development Bank's program, in the work TFFPs is used for referring to MDBs' programs generally. TFFP stands for said bank's program.

EMs will be the focus of this study since they are unnoticed in trade finance (Brandi & Schmitz, 2015b). Additionally, although MDB programs target EMs, Low-Income Countries (LICs) and Middle-Income Countries (MICs), it is easier to track the effects of TFFPs in EMs rather than other ones.

In some studies, the terms trade credit and trade loan are used instead of trade finance. For clarification, APPENDIX II is added to this study. Additionally, the terms MDB and IFI are used interchangeably in the literature. Chauffeur & Farole's (2009) style is followed and the term MDB is preferred in this study. For detailed information, APPENDIX III will be useful. The concept EMs is used in accordance with the Morgan Stanley Capital International (MSCI) Emerging Market Countries[2].

The difference between bank-intermediated and alternative methods for trade finance can be blurry. For instance, in the study forfaiting is explained under alternative methods although banks can mediate this method by discounting Letter of Credits (L/Cs) or Promissory Notes (P/Ns) for exporters. It is because bank-intermediated trade finance still evokes mostly L/Cs, or Letter of Guarantees (L/Gs).

Data sources in this study are based on bank-intermediated trade finance and surveys as well as proxies. Because there is no precise and longstanding data for trade finance, using a comprehensive dataset is a significant problem for trade finance studies. Data shortage is specified in the literature, e.g. "The findings of these surveys are particularly informative because of the general lack of data on trade finance." (Malouche, 2011:173); "To remedy the lack of data, several organizations came to the rescue with surveys in early 2009" (Hallaert, 2011: 249); "There is no comprehensive source for measuring the size and composition of the trade finance market." (BIS, 2014:1). Furthermore, the most consistent data in trade finance is Berne Union export insurance data and it is stated as "only available and reliable source of statistics" regarding trade finance in the course of 2008 crisis (Malouche, 2009: 21). Moreover, a great deal of data sources in trade finance, such as cross-border stocks or flows, are not categorized with breakdowns according to the payment methods such as open

[2] For further details, please see: https://www.msci.com/market-classification

account or L/Cs as can be seen in this study. Thus, these unsegregated datasets should be taken into consideration that they are used only as proxies for this study too while interpreting the data for trade finance. Additionally, it should be noted that studies in the literature use these proxies while trying to find out whether supply (financing) contraction from bank side causes drop in trade or demand fall from firm side causes trade decline especially in crises.

This work is structured around three chapters. The first chapter examines conceptual explanations of trade finance and its instruments, its relationship with trade, actors, brief literature review, and an introduction of the MDBs. Efforts of regulatory institutions are also shown to better identify the trade finance ecosystem. Although trade finance could have been technically discussed longer, I tried to describe it as much briefly, traditionally but thoroughly as possible. Therefore, in this chapter trade finance instruments were not categorized with exact details. APPENDIX I will provide a fair understanding for product details. Due to the fact that trade finance and trade interaction occupy a considerable place within literature after the 2008 crisis, these are examined in this chapter in order to describe trade finance.

In the second chapter, regardless of trade finance's impact on trade, it is evaluated mostly within the context of 2008 crisis and EMs. Trade finance shortage, post-crisis problems and EMs' specific difficulties are also remarked. Problems that seem to be secondary factors are mentioned. This chapter shows the development of the process as well as why and how MDBs took part in trade finance.

Lastly, final chapter includes the institutional and actor interactions in the market in crisis periods. MDBs' responses to the crises via TFFPs were analyzed focusing especially on 2008 financial crisis. It is very hard to point and collect every single one of actions against the crises due to difficulties of access to the information in trade finance ecosystem. Additionally, the initiatives were replicated from one another and founded based upon experiences. Therefore, to utilize from available information and data, not only actions of MDBs in EMs and the course of 2008 crisis but also practices in developing markets and past crises are also used as limited number

of examples[3] for the thesis argumentation and Figure 3.1. Based upon these analyzes and partially first and second chapter, Figure 3.1 presents how MDB initiatives changed the game together with other actors in the market in the course of 2008 crisis. By being an unprecedented analysis of the trade finance in the literature, Figure 3.1 is a crucial output of this thesis. It brought together all the interactions in the market with actors, institutions, policies and actions. Thanks to TFFPs dynamic nature, which were designed according to the market needs and experiences, MDBs were able to cope with 2008 crisis as well. Effects of 2008 crisis in EMs were alleviated by MDB programs along with sound coordination and cooperation among all actors.

In the course of finishing touches of this thesis, COVID-19 Pandemic occurred and created a fear and turbulence in the global economy as well as international trade due to mainly broken supply chains and demand fall. Several studies and reports were published regarding the effect of the Pandemic to the trade finance[4]. Several actors and authorities responded against the effects of the Pandemic on trade finance[5]. All of these provided a real time cross check for the thesis and verified the thesis's argumentation and output, the Figure 3.1. However, this anecdotal evidences, comparisons and similarities are not included in the thesis due to time and subject limitations, and because there is nothing current called "crisis" in the global economy.

[3] As an example, although Ukraine is not an EM, IFC's involvement in the syndication of Ukreximbank is mentioned on p. 83.
[4] Please see: https://www.bis.org/publ/bisbull24.htm, https://iccwbo.org/publication/trade-financing-and-covid-19/, https://insights.nordea.com/en/ideas/trade/covid-19-and-the-consequences-for-trade-finance/
[5] Please see: https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/covid-19

CHAPTER ONE
TRADE FINANCE: A GENERAL EVALUATION

Trade finance had not drawn proper attention until the 2008 financial crisis although there had been some works on the topic until then (Serena Garralda & Vasishtha, 2015: 7). There is, thus, a limited literature on trade finance (Amiti & Weinstein, 2011: 6). After some studies have published on this topic, its importance came to the fore. Especially since the 2008 crisis, trade finance has attracted attention due to its vital role in global trade and shortage in times of crisis (Malaket, 2015: 7). Additionally, trade finance is declared as a means of United Nation's (UN) Sustainable Development Goals (SDG) (Inter-Agency Task Force on Financing for Development, 2018). Thus, trade finance has officially registered as a tool for development. In this sense MDBs, Export Credit Agencies (ECAs), local, regional and international banks play an important role for UN's SDG. Nevertheless, as trade finance is not a popular topic, technically its functions and products are not familiar with the academic audience. So, trade finance will be described briefly in the chapter. Some of the studies in trade finance include econometric approach by focusing on trade and trade finance relationship or effects of crisis on trade finance mostly from exporting perspective due to available export related data. These will be presented as both literature review and to understand the trade finance mechanism. Since this study tries to gradually specialize through the last chapter, this chapter will include the operational definitions, categorizations and actors of trade finance, trade and trade finance relationship, trade constraints and trade finance causality. Trade finance and crises relationship will also be referred broadly to provide a basis for second chapter.

1.1 Trade Finance

Trade finance is an umbrella term that as a generic definition refers to "any financial arrangement connected to interfirm commercial transactions", and more specifically it means "the funding of individual international commercial transactions by financial intermediaries" (Elingsen & Vlachos, 2011: 236). It fills the financing gap that is the result of the time between the production/delivery of the goods by the

exporter and payment by the importer as well as minimizing risks such as political, commercial and shipment. So, liquidity and risk mitigation are the two main and basic functions of trade finance. It is a self-liquidating type of finance and has sound collaterals and documentation (WTO, IFC; 2019: 3). Secondary market[6] is available for trade finance and calculated around $1 trillion via securitization[7]. Despite its risky appearance, trade finance has very low default rates as a financing type, e.g. 0,02% for import L/Cs in 2013 (ICC, 2014). Trade finance products can vary for different needs and situations according to their functions regarding the transaction as can be seen in detail in APPENDIX I. They can be separated mainly as bank-intermediated such as Letter of Credit (L/C) and Letter of Guarantee (L/G) and non-bank-intermediated such as open account-which is realized as inter-firm-and insurances or guarantees provided by public or private ECAs[8] and insurance companies. Preferred payment method for international trade may differ depending on the counterparty. While exporters require bank-intermediated products for new customers, they may not require bank-intermediation from a familiar importer (Antras & Foley, 2015).

Sometimes it is possible to utilize more than one product by importers or exporters. An exporter may extend a trade credit to the importer while benefiting from a trade credit insurance or factoring.

Roots of trade finance can be traced back to the Code of Hammurabi in the form of factoring (Papadimitriou, Phillips, & Wray, 1994: 11), ancient Greeks in the form of Letter of Credit (L/C) and Hittites at 13th century BC in the form of trade insurance (Schoon, 2016: 3, 7). These were of course primitive forms of trade finance. Nevertheless, the basis of modern trade finance can be seen in medieval times. As a result of the medieval developments such as maritime technologies, trade expansions and financial innovations, banks started to take part in trade by providing trade finance and insurance to the traders (The World Bank, 1989: 43). Italy is an appropriate

[6] For further details, please see: https://www.tradefinanceglobal.com/posts/secondary-trade-finance-market-explained-tradeassets/ visited on 08.08.2019
[7] For further details, please see: https://www.americanexpress.com/us/foreign-exchange/articles/trade-finance-securitization/ visited on 08.10.2019
[8] Trade finance products may be blurred for some reasons. As an example, an exporter may extend a credit to the importer, but can discount its receivables. For detailed trade finance categorization and products, please see APPENDIX I.

example in this case. Medici Family was one of the bankers that provided trade financing to the others along with trading on their own account (ibid). Banks get involved in trade finance not only to seek profit but also to meet the demand coming from the traders. Because merchants or individuals could not take such huge risks and have such large capital on their own, commercial banks (of the wealthy) as medieval institutions got involved in financing of trade (Postan, 1973: 16).

Table 1.1 shows the risk of payment methods according to importer and exporter side along with share of the payment methods in world merchandise trade.

Table 1.1 International Trade Payment Methods According to Safety and Shares

Increased Security for Exporters

Cash in Advance	Bank-intermediated		Open Account		
19%-22%, $3-$3,5 trillion	35%-40%, $5,5-$6,4 trillion		38%-45%, $6-$7,2 trillion		
	L/C	D/C	credit covered by BU[1] members	arm's-length nonguaranteed	intrafirm
			$1,25-$1,5 trillion		

Increased Security for Importers

$16.15 billion global merchandise trade

Note: BU: Berne Union

Source: Asmundson I., Dorsey T., Khachatryan A., Niculcea I., & Saito, M.: 2011, p.90, 2008 - 09 Financial Crisis: Evidence from IMF and BAFT–IFSA Surveys of Banks. Ed. J.-P. Chauffour, & M. Malouche, Trade Finance during the Great Trade Collapse (s. 89-116). Washington DC: The World Bank; The World Bank, World Development Indicators. DataBank: https://databank.worldbank.org/

The methods of payment in international trade reveal the characteristics of countries in the way they take part in international economy, trade, risk, and finance. For instance, exporters of Turkey are always the risk-takers in international trade as they accept cash against goods payment (TURKSTAT). A possible reason behind this payment method is the competitive advantage of other exporters against Turkey or relatively riskier status of Turkey as an Emerging Market in the global market compared to developed countries. Turkish exporters can use export insurance against increasing risks of nonpayment especially in crisis times. On the import side, until

2016, Turkish importers were always the risk-taking side in international trade as they paid in advance (ibid). It can be again the result of the relatively riskier status of Turkey as an EM in the global market against developed countries. Since 2016, cash against goods has been the most used import payment method (ibid). None of these, however, fall within the scope of this work. All of these should be examined in further studies.

1.1.1 Bank-Intermediated Trade Finance

International Trade has several basic risks[9] such as Country Risk (Political), Non-payment Risk (Commercial Risk, Importer's Risk), Solvency Risk (Applicant Bank's Risk), Delivery and Fraud Risk (Exporter's Risk). Bank-intermediated trade finance minimizes these risks. There are variations in some products according to their payment methods, maturity or guarantee types, such as acceptance L/C or Stand-by L/C. In this section, only generic products along with innovative ones will be examined.

L/C is the most famous bank-intermediated trade finance instruments. L/C is the "life-blood of commerce" (Swarb, 2019) and has various types[10]. Even though it does not guarantee zero risk, it minimizes the risk of non-payment by importer and non-shipment by exporter. L/Cs account for nearly one sixth of total trade (Narain, 2015: 110). L/C consists of some documents and operational processes. A typical process is started when the importer requires from his bank to issue an L/C to the exporter's bank. The issuance is realized via Society for Worldwide Interbank Financial Telecommunication (SWIFT) messaging system[11]. MT700 is the message type which includes details of the transaction and L/C sent to the exporter's bank. Figure 1.1 shows the L/C process. When the documents are released to the importer, he can clear the goods from customs.

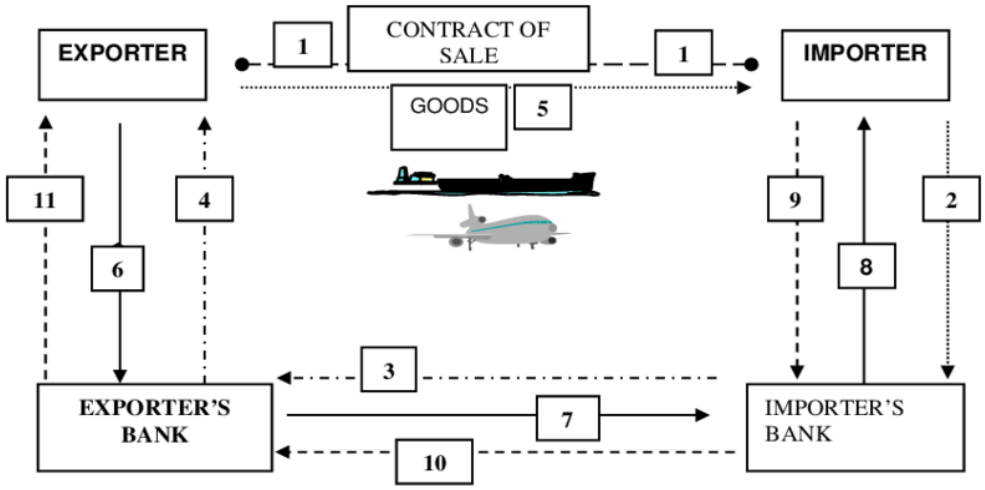
[9] These are main risks that are generally accepted but these can vary in names. For further details, please see: http://fita.org/aotm/0399.html, https://www.gtreview.com/what-is-trade-finance/ visited on 03.08.2019

[10] For further details, please see: https://www.morethanshipping.com/letter-credit-types/ visited on 03.08.2019

[11] For message type details, please see: https://docs.oracle.com/cd/E19509-01/820-7113/6nid5dl2r/index.html visited on 03.08.2019

If the L/C is confirmed by advising bank or a third bank, regardless of the non-shipment or fraud, payment is made by bank to the exporter (Bhogal & Triverdi, 2008: 43). L/C confirmation is generally requested according to the creditworthiness of importer's bank or country (ITC, 2009: 31). L/C also brings a liquid financing opportunity both for bank and importer. When the payment type is sight (advance) rather than deferred payment for L/C, exporter's bank or a third bank provides trade loan to the importer's bank against that sight payment as if the importer's payment was a collateral. Usually importer takes a return of premium to enable bank to take a short-term loan. It is called postfinancing or trade loan. Also, for deferred L/C, discounting is possible to provide payment to exporters.

Figure 1.1 L/C Operations



Legend:

1. Contract of sale between the parties – L/C is the method of payment chosen
2. Importer lodges L/C application with issuing bank
3. Issuing bank issues L/C to advising bank
4. L/C advised to exporter
5. Goods despatched
6. Required paper based documents lodged by exporter to the bank (altogether in one presentation)
7. Documents sent to issuing bank for acceptance
8. Documents released to importer
9. Funds transferred from importer on due date
10. Funds transferred from issuing bank
11. Funds transferred to exporter

Source: Bergami, R: 2006, The Link Between Incoterms 2000 and Letter of Credit Documentation Requirement and Payment Risk. Journal of Law and Governance, 51-60, p.55

There are other bank-intermediated products apart from L/C:

- Documentary Collection (D/C) is another bank-intermediated product. It is also called as Cash Against Documents. Unlike their role in L/C, banks are involved in this process with limited responsibility. Banks do not negotiate the documents and undertake the payment responsibility (Narain, 2015: 108). D/C splits up two types as Documents against Payment which requires a sight payment and Documents against Acceptance (D/A) which requires an acceptance on draft that shows promise to payment. Postfinancing, which provides Foreign Exchange (FX) loan to the importer's bank, is also possible for advance D/C payments.

- L/G is a bank guarantee which ensures that the beneficiary will be paid by the bank if the applicant, the contractor or supplier, fails to honor its obligations (Bhogal & Triverdi, 2008: 171).

- As the financing requirements increase and technology develops, methods of payments and trade finance products vary and evolve. Along with traditional methods, there are also innovative ones. Bank Payment Obligation (BPO) has the same structure and safety as L/C but it is conducted without physical documents. The payment and documentation processes are monitored digitally (BIS, 2014: 4).

- Supply Chain Finance, also known as reverse factoring, is the financing of suppliers by banks via leveraging their big purchaser (Malaket, 2015: 3).

- Warehouse Financing, also called as Inventory or Warehouse Receipt Financing, refers to extending loan to the producers or exporters against warehouse receipts as a collateral (ITC, 2009: 38).

1.1.2 Non-Bank-Intermediated Trade Finance

Traditionally, non-bank-intermediated trade finance instruments are trade credits which enable importers or exporters to extend credit to each other as cash in advance or open account, respectively.

Open account, also called cash against goods, is a financing type between importer and exporter needless of any other financing source. Shipping and delivery are realized by the exporter before the realization of payment by the importer. So, the risk is undertaken, and financing is provided by exporter. It is costless but has high risk due to nonpayment after obtaining the property of goods by the importer. It requires high trust between partners (ITA, 2016). Apart from trust between partners, competition among exporters forces them to provide open account for importers (Demir & Javorcik, 2018). In this payment type, if the parties do not know each other well, importer may issue a P/N which is an unconditional payment promise or exporter may issue to the buyer a Bill of Exchange which can be required to be avalized by buyer's bank (ITC, 2009: 21) This type of payment, too, provides the possibility of trade loan for the importer's bank from a foreign bank.

Advance payment, also called Cash in Advance, is another payment type. Importer makes the payment before the shipment of goods. It removes the non-payment probability but may cause customers to choose other exporters due to advantageous payment terms for themselves (Narain, 2015: 108).

The reason behind counterparties' choosing these kinds of payments rather than bank-intermediation is either trust-longstanding relation between parties-or relatively being inexpensive in comparison with bank products. Additionally, distance between importer and exporter countries or quality of contract enforcement can lead to the non-bank-intermediated payment terms (Schmidt-Eisenlohr, 2013). Latin America and Caribbeans are good examples for this exclusive situation. They did not depend mostly on bank-intermediated trade finance (ICC, 2017). One possible reason of that might be United States which is a big trade partner for them, has a close location and high contract enforcement (Demir, 2020).

There are different ways of financing the international trade and guaranteeing the payment other than traditional and bank-intermediated methods although the logic behind them is similar.

- Factoring is the purchasing the receivables of exporter on the part of factor by discounting the invoice amount (Bhogal & Triverdi, 2008: 132). Importer pays the invoice amount to the factor which conducts the transaction process on behalf of seller.

- Forfaiting is the purchasing of the avalized negotiable instrument (such as L/C, Bill of Exchange, Promissory Notes) at a discount by forfaiter[12] and the collecting of payment from importer's bank on due date (U.S. Department of Commerce International Trade Administration, 2012: 24).

- Export Credit Guarantee is a safety product for commercial banks. It is provided by ECAs or EXIM Banks to guarantee the financing of banks that support exporters (ITC, 2009: 47).

- Export Credit Insurance protects exporter from non-payment risk against commercial or political risk (U.S. Department of Commerce International Trade Administration, 2012: 19). It is also known as Trade Credit Insurance and provided by ECAs or EXIM Banks.

- Central Banks (CBs) may also be involved in trade finance. The Reserve Bank of India provided an innovative system named as Trade Receivables Discounting System[13].

1.2. Trade Finance Actors

From ancient to modern times, trade and its finance have been an integral part of the economic system. Although financing the trade is concerned with just an accounting-related matter from a trader's perspective at the business level, it is far more than that as a subject of the global economy, trade and finance. In the course of history, several actors have occurred in trade finance process other than importer, exporter and shipper: Commercial Banks, Insurers, and Forfaiting and Factoring

[12] It may also be a bank since discounting the L/C or other instruments is same with forfaiting. However, there are financial institutions in forfaiting business other than banks.
[13] For further details, please see: https://www.rbi.org.in/scripts/bs_viewcontent.aspx?id=2904

Companies. With the globalization, integration and complexity of financial system some institutions are added to this process in 20th century: International Organizations (IOs), International Financial Institutions (IFIs), Export Credit Agencies (ECAs), Multilateral Development Banks (MDBs), and Regional Development Banks (RDBs). Trade finance processes and transactions may include more than one of them jointly or separately. In any case, they constitute a trade finance ecosystem. Of course, this ecosystem has some international regulatory and promoter institutions which both can be policy makers. International Chamber of Commerce (ICC), Basel Committee, International Monetary Fund (IMF) and The World Bank (WB) can be categorized as regulatory institutions while International Finance Corporation (IFC), European Bank for Reconstruction and Development (EBRD), Asian Development Bank (ADB), African Development Bank (AfDB), Inter-American Development Bank (IDB), and International Islamic Trade Finance Corporation (ITFC) are examples of promoters. These organizations drew more attention for their regulations, policies and incentives worldwide after the catastrophic crisis in 2008. Against the profit seeking business among private sector actors, government backed ECAs and MDBs do not focus on profit for themselves even though they make profit. They are in an endeavor to support trade finance because of its importance for both national and global economy, stability and development.

1.2.1 Commercial Banks

Commercial Banks are nearly *sine qua non* of modern commercial transactions. They are also important actors in trade finance either as a payment provider or an entity in financing scheme. In the Section 1.1.1, it is shown how banks undertake the guarantor role for trade. Banks can be divided according to their business locations and geographical/operational limitations. Generally, domestic or local banks refer to the banks that are counted as applicant's bank in trade finance, requires liquidity or confirmation and issuance for L/Cs for overseas transactions. International or global banks, in turn, refer to the ones that provide confirmation to the L/Cs, liquidity, or expose risks.

Nearly all secure communication between banks for every transaction is realized via Society for Worldwide Interbank Financial Telecommunication (SWIFT) as well as international payments and trade finance transactions. SWIFT has a secure messaging system between financial institutions and mostly among banks. L/C issuance, amendments, payments, and shortly all authenticated communications are realized via SWIFT.

In trade finance process, there are several issues on the bank side such as accounting, documentation, and operation. For the accounting, trade finance instruments are kept on off-balance sheet and under contingent liabilities in banks (EBA, 2015: 123). Trade finance commitments are exposure on banks. If the applicant does not fulfill its payment commitment, it becomes a cash liability for bank and the banks undertake the payment to its counterparty instead of its customer.

Trade Finance has a senior status among debts because it provides prestige and borrowing credibility to the banks and countries (van Bommel, 2012: 17). In case of an insolvency and a notorious status regarding trade finance payments may cause devastating results for countries. This dilemma was seen after the Latin America crisis in 1980s. As seen in Brazil, Argentina, Venezuela and particularly Mexico examples, debtor countries separated trade finance debts from restructuring portfolio in an effort to honor the trade finance debt and interest for the sake of continuity of available liquidity for international trade (Alverez & Flores Zendejas, 2014: 130).

Banks involve trade finance business as risk mitigating institution along with finance provider. High political risks, longer trade routes or recent trade relations require more bank involvement (Niepmann & Schmidt-Eisenlohr, 2013; Glady & Potin, 2011). In some cases, exporter needs working capital and assurance of disbursement in the time interval of the production or shipment and payment. Bank-intermediated trade finance can offer working capital as well as freight insurances (Pasadilla, 2010: 2). “Bank-intermediated trade finance acts as the lifeline for trade and commerce” (Narain, 2015: 106) and banks undertake 80% of the total trade finance

(WTO, 2009)[14]. The products provided by banks for trade finance are mostly used in EMs, and in Asia (BIS, 2014). While IMF-BAFT Survey found that bank mediating trade finance was increasing through 40% support of total global trade (IMF-BAFT, 2009), Narrain reminds that according to the ICC (2009) it is around 20%. (Narain, 2015: 110).

1.2.2 Export Credit Agencies, EXIM Banks and Central Banks

ECAs are both prompters and shields of international trade's and finance's risks either as a government backed or private financial institution. To relieve the international trade that was devastated during the world wars, ECAs became one of the key actors to do their duties (Alverez & Flores Zendejas, 2014: 128). Sometimes they have been the unique actor in trade finance. Customers use ECA credits via their banks and some banks use ECA coverage for their risks against the applicant banks. ECAs were the single source of finance for trade in Asian crisis (ITC, 2009: 47). As an example, after Asian Crisis, due to high risk of and unwillingness to export to following countries, Australia provided export insurance via Export Finance and Insurance Corporation to keep exporting to the South Korea and Indonesia (The Commonwealth Treasury of Australia, The Task Force 1999: 49). They undertook these duties again in 2008 crisis. Several ECAs established support programs to cope with crisis such as APEC Trade Insurance Network (UNCTAD, 2012: 5). ECAs provide direct loans, or mostly guarantees and insurances to the private sector against nonpayment (Blackmon, 2017: 15). They get involved in the trade finance business where the banks do not have appetite of risk and perform followings: mediating the trade finance with different instruments, reducing the information asymmetry, serving as a platform for both domestic and foreign governments and private sector players, and spreading the risk (Fingerand & Schuknecht, 1999: 9).

ECAs can be categorized on national, regional or global levels. The leading ECAs worldwide and the umbrella organization which undertake an important role as a global association of ECAs and EXIM Banks are followings:

[14] Please see also footnote 27 on p. 22.

- "The International Union of Credit and Investment Insurers (Berne Union) is an international not-for-profit trade association, representing the global export credit and investment insurance industry," founded in 1934 and in 2017 it reached "84 members from 73 countries"[15] (Berne Union, 2019). Berne Union came into existence to protect and promote national exports as a result of Great Depression, which was the first big modern economic problem over the world. (Hallaert, 2011: 250). It acts as an interaction platform for member ECAs to cooperate and share information (Blackmon, 2017: 17). Berne Union contribute to trade finance ecosystem providing its data for research as well[16].

- Coface is a credit insurance company founded in 1946 in France as a government company and in 1994 it is privatized (Coface, 2019). It also has services such as factoring and information providing.

- Export Development Canada (ECD) was founded in 1944 to provide insurance, financing and bonding. Although they are an institution supported by government, EDC is not subsidized by government since it is a self-sustained institution. In 2018, they facilitated more than 13.000 Canadian Companies which were mostly small companies, and quarter of these were doing business in emerging markets (Export Development Canada, 2019).

- Euler Hermes is a global insurance company which focuses on trade credit and receivables as well as payment collection. It has a history more than 100 years. A useful data platform[17] like Berne Union was provided by them to the public.

Apart from ECAs, there are EXIM banks that function similarly but differ in some aspects from them. For instance, EXIM banks may provide direct lending instead of insurance while they can also provide insurance (IMF, 2003: 21). EXIM banks are government backed and owned institutions while ECAs may be either government backed or private institutions. EXIM banks use their own balance sheet for taking

[15] For further details, please see: https://www.berneunion.org/Members
[16] For further details, please see: https://www.berneunion.org/DataReports
[17] For further details, please see: https://www.eulerhermes.com/en_global.html and https://opendata.eulerhermes.com/pages/home-page/

'political' risks in contrast to ECAs that use commercial banks' balance sheet for taking 'commercial' risks (UNCTAD, 2012: 5). As an EXIM Bank, US Ex-Im Bank works like an ECA. After the 1997 Asian Crisis, US Banks refused to confirm L/Cs from South Korean Banks' since the limits were reduced. US EXIM Bank undertook the risk of South Korean Banks by providing export credit insurance to the US exporters. Not only developed countries but also EMs establish EXIM Banks with the aim of several objectives such as export-led growth strategy (Chauffour, Saborowski & Soylemezoglu, 2010: 14). As an example, in the direction of export-orientation after 1980s (Onis & Webb: 1992), Turkey established Turk Eximbank in 1987 as an ECA to provide financing, credit, loan, insurance and guarantee in favor of Turkish exporters. EXIM Banks do not only extend loan or insurance for export but also take various actions for trade finance. For instance, Exim banks of BRICS came to an agreement on providing credit to each other in local currencies by reducing the demand for FX reserve (UNCTAD, 2012: 5). In a response to the 2008 crisis, US EXIM Bank extended its loans from $12 million to $3 billion and increased credit insurance around 145%.

CBs involve in trade finance as well. The main objective of CBs is to achieve the price stability and keep inflation at a sustainable low level (IMF, 2017). However, CBs perform various activities, even interventions for trade finance to cease market constraints, especially in crisis times. In the literature, majority of CB interventions to the trade finance are examples from EMs as such. It is not surprising since FX reserves and financial stability are relatively weaker in those countries. Thus, CBs act in favor of trade finance in hard times. In 2008, Central Bank of Brazil injected $10 billion as FX reserve to the local banks and importers (UNCTAD, 2012: 5), while between August 2002 and 2003 it was $1.8 billion for preshipment and postshipment export financing (IMF, 2003: 7). Just like Brazil, The Bank of Korea provided $10 billion FX reserve for market in 2008 (UNCTAD, 2012: 5), whereas after the 1997 crisis it was $2.3 billion for import inputs for exports (IMF, 2003: 8). Central Bank of Indonesia was also in action by depositing $1 billion to 12 international banks as guarantees to be able to issue L/Cs and cease the insolvency risks (Jacobs, 2005). Additionally, they used swap and forward together with rediscount facilities for export financing (IMF,

2003: 7). Central Banks of India and South Africa were in such efforts (UNCTAD, 2012: 5). One of the most recent actions was the ECB's US Dollar auctions in 2011-2012 (ECB, 2011). CBs do not only work on their own account but also support other countries for mutual benefits. For instance, The U.S. Federal Reserve supported trade finance activities for big EMs such as Brazil, Mexico, South Korea, and Singapore, separately $30 billion each, in 2009 via currency swaps (IEG, 2012: 15).

1.2.3 Multilateral Development Banks, International Financial Institutions and International Organizations

Multilateral Development Banks are multiple government backed and owned international or regional institutions that provide financing and consultancy, ensure financial and economic stability and collaboration between its members with the aim of their developments (Bhargava, 2006: 393). They are mostly AAA-rated (Faure, Prizzon, & Rogerson, 2015). According to the Bhargava, MDBs[18] generally indicate WB Group (IFC), AfDB, ADB, IDB, and EBRD while the last four can be called as RDBs[19] because of their focuses and WB's global position (Bhargava, 2006: 394). Most of their missions consist of fighting with poverty and focuses are economic and social infrastructure along with development (Faure, Prizzon, & Rogerson, 2015). It may stem from their foundation "during and after decolonization" (Ibid: 3). They also have international political roots at their foundation apart from decolonization. Foundation of IDB and ADB are supported by United States as a Cold War strategy (Bull & Bøa§s, 2003). EBRD was also founded aftermath of the Cold War[20] aiming for a smooth transition to the market economies for Central and Eastern Europe (Delikanli, Dimitrov, & Agolli, 2018: 17). Needless to say, IFC is a part of the WB, which is a Bretton Woods System institution and twin of IMF, established after World War II. In contrast in terms of their founding dates, their interests in trade finance are relatively new. IFC, IDB, AfDB, ADB, and EBRD are founded in 1956, 1959, 1963,

[18] The author use IFI term. For detailed clarification, please see APPENDIX III.
[19] According to the Delikanli, Dimitrov and Agolli, it is hard to distinguish MDBs one from the other because of the both operational and conceptual blurry borders (Delikanli, Dimitrov, & Agolli, 2018: 10).
[20] Please see also https://www.ebrd.com/who-we-are/history-of-the-ebrd.html

1966, 1991, respectively. However, the first trade finance facilitation program was started in 1999 by the last founded MDB, which is EBRD. Before 1999, although MDBs facilitated trade finance activities right after the 1997 Asian Crisis as will be seen in following chapters, structured trade finance facilitation programs were created in 2004, 2005 and 2009. Besides, some MDBs are criticized for their support for trade finance, e.g. IEG stated that in terms of private sector growth, instead of supporting other areas, IFC missed opportunities by focusing on trade finance (IEG, 2011: 64). Such internal critics may to a certain extent be right. However, IFC's support for trade finance during the crisis environment had great global benefits. MDBs' involving in trade finance shows two transitions: Cooperating with private sector with the purpose of meeting development goals and undertaking responsibility after 2008 crisis via various instruments and data sources to research the development impact of trade finance (Beck & DiCaprio, 2020: 202). They fill the trade finance gap derived from risk aversion and liquidity squeezing of banks by providing liquidity and risk coverage via different instruments to the market (Ibid). Aforementioned MDBs also cooperate with each other[21] via TFFPs in an effort to establish relationships between different banks and support the South-South trade (Auboin, 2016: 15), although previously there were almost no support for South-South trade (Mulder & Sheikh, 2005: 44). They also cooperate with banks and their TFFPs are utilized through banks. MDBs support countries mostly for supply side internationally or regionally. However, MDBs alone are unable to cope with trade finance both in terms of supply side and policies. Therefore, CBs, BIS, domestic institutions, ICC and WTO were in coordination to some extent.

As an international association, ICC was always in trade finance, at least for establishing set of rules. As an example, the rules to issue and use L/C are in accordance with Uniform Customs and Practice (UCP)[22] prepared by ICC. ICC Banking Commission is a widescale forum for trade finance ecosystem. Additionally,

[21] As an example, please see https://ifcext.ifc.org/ifcext/pressroom/ifcpressroom.nsf/1f70cd9a07d692d685256ee1001cdd37/5cbfeff19390d68b85256cfd006aa429

[22] For detailed information, please see https://iccwbo.org/global-issues-trends/banking-finance/global-rules/

ICC publishes a yearly comprehensive report named as "Global Report on Trade Finance".

Because WTO is not regarded as IFI, it can't take place in the financial side of the trade finance. In parallel with that, in some WTO meetings, it was pointed out that the requests and concerns were beyond the scope of WTO (Working Group on Trade, Debt and Finance, 2009). However, WTO encouraged the IFIs or banks to support the market (Auboin, 2009b: 4). Brandi, Schmitz and Hambloch (2014) states that WTO is the spearheading of trade finance among other international actors according to WTO documents. WTO continued its anchorman position in trade starting from Marrakech Agreement[23] in April 1994 and then by forming a working group consisting of representatives of member states on trade, debt and finance in Doha in 2001. They participated in the working group for trade finance in 2003 together with IMF and the World Bank (Auboin, 2011: 290). The group also performed in 2008 financial crisis as a core base in trade finance between actors including IFC, the World Bank, regional development banks and ECAs. Besides a working group, WTO formed an expert group on trade finance meeting twice a year and consisting of representatives of institutions such as Berne Union, IFC, regional development and private banks.

Bank for International Settlements (BIS) also is an actor in trade finance. BIS is the 'bank of central banks' that provides money market, FX or gold services along with coordination and research for monetary and financial stability. It is not surprising that BIS is included in trade finance especially after CBs involved in trade finance, especially in times of crisis. BIS also hosts the Basel Committee on Banking Supervision (BCBS) that has a great impact on worldwide banking regulations via Basel Accords which have been three series so far. BIS[24] organized a trade finance study group under Committee on the Global Financial System (CGFS) in 2012 November to cooperate and share information with CBs extensively (BIS, 2014: 3).

[23] For detailed information, please see https://www.wto.org/english/thewto_e/coher_e/coher_e.htm
[24] BIS participated in to develop a data pool with IMF, OECD and WB. For further details, please see: https://www.bis.org/publ/r_debt.htm

WTO cooperation with BIS is very crucial. The communication and interaction gap between these two institutions additionally create a broken trade (finance) linkages between developed and developing countries because BIS consists of mostly developed countries' CBs and while WTO consists of both developed and developing countries' representatives (Brandi, Schmitz, & Hambloch, 2014: 3).

Although it does not seem to have involved in trade finance actively, IMF takes place in trade finance within the context of debt restructuring arrangement of debtor countries in Paris Club, and by this means offers new credits to those countries (Blackmon, 2017: 6, 8). Additionally, IMF provide access to foreign exchange (FX) reserves for countries (Wang & Tadesse, 2005: 15). Lastly, IMF's surveys among banks in collaboration with BAFT and later BAFT-IFSA, presented a great deal of insight where the data is unavailable regarding trade finance.

Lastly, Organization for Economic Cooperation and Development (OECD) can be regarded as a trade finance related institution. OECD is a cooperative International Organization (IO) which provides economic and social policies for better development goals among its member countries, those who acknowledge democracy and free market. OECD is included in trade finance with regard to export credits[25]. The Arrangement on Officially Supported Export Credits is the set of rules for "gentlemen's agreement" for the participants[26] created in 1978. It was a useful framework that 'disciplined' the trade finance (Moravcsik, 1989). However, decades after, it became unfashionable and should be updated in order to adapt to changing business environment (Thompson, 2019).

1.3 Trade Finance and Trade

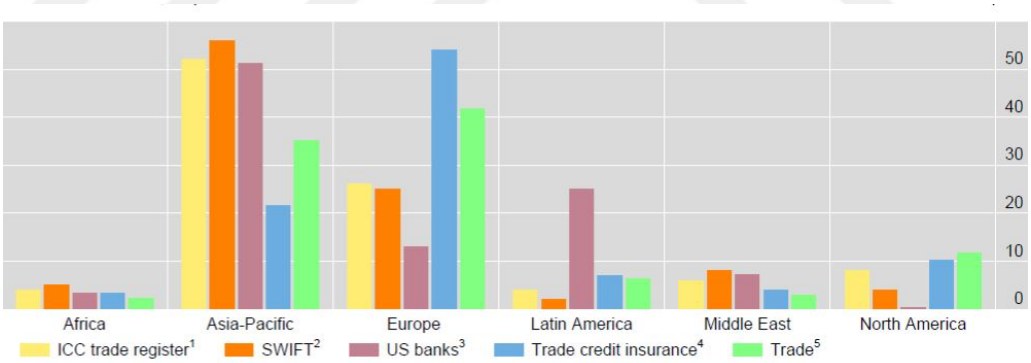
A consistent trade growth should be built upon "reliable, adequate and efficient source of financing, both long-term (for investment in tradable goods and services) and short-term (financial instruments that allow "real" transactions to be protected

[25] For further details about OECD and trade finance, please see: https://www.oecd.org/about/secretary-general/tradeandexportscreditsintheglobalagenda.htm
[26] For further details, please see: https://www.oecd.org/trade/topics/export-credits/arrangement-and-sector-understandings/

from instability in asset prices, and for trade-financing).” (Working Group on Trade, Debt and Finance, 2002). Hence a stable and uninterrupted financing is important for trade flows. In domestic trade commercial risk is relatively lower. At least, the seller is familiar with the law, knows the rights of himself and has a chance to reach the buyer. However, international trade is riskier than domestic one since the countries have different laws, and once the goods reach the importer’s country it becomes harder to defend property rights by exporters. Be they importers or exporters, firms in countries which have weak contract enforcement have lower volume of trade, and bank-intermediated trade finance is needed in these countries (Schmidt-Eisenlohr, 2013). Thus, one side of the relationship between trade and trade finance is that protective trade finance products are mostly used for riskier transactions.

Figure 1.2 is a proxy for trade finance dependency. Asia-Pacific is the most dependent region on trade finance while second in trade volume.

Figure 1.2 Geographical distribution of trade finance and trade



Note: As a share of total, percentage. [1]Average from 2008 to 2011, [2] Based on average value of sent and received SWIFT MT700 messages in 2011, [3] The US data capture only lending vis-à-vis non-residents resulting in a low share of US banks’ exposure to North America. Average from 2008 to September 2012, [4] Short term credit insurance from the Berne Union. Average for Q4 2011 to Q1 2013, [5] Merchandise trade (average of imports and exports) from Q1 2008 to Q4 2012.

Source: BIS: 2014, p.11 Trade finance: developments and issues. CGFS Papers No. 50. https://www.bis.org/publ/cgfs50.pdf

Despite the lack of availability of enough data (Putz, Ben Ahmed, Beck, & Carrera, 2011: 334), it can be said that 80% of total trade relies on any form of trade finance products (ICC, 2018)[27]. Thus, trade finance is crucial for trade. Trade Finance

[27] In the same report it is indicated that 80% of trade relies on Open Account term. Although it is a contradiction with proposing that 80% of trade relies on any kind of trade finance, other sources

instruments are called as “grease” of trade (Mora & Powers, 2011: 117). However, in the literature the relationship between trade and trade finance is very complicated. As it will be shown in following section, there are opposite findings regarding this relationship.

1.3.1 Trade Finance, Export and Import

Findings from international surveys show that decreasing value of the trade finance, which was derived from the demand fall for trade activities, was far less than decreasing value of the goods export according to the IMF-BAFT and IMF and BAFT-IFSA surveys (FImetrix for IMF and BAFT, 2009; FImetrix for IMF and BAFT, 2010). As an intersection point of trade and its finance, L/C issuance volume[28] starting from 2008 to 2011 first decreased 1,9%, then increased 6,6% and then decreased again 2,5% (ICC, 2012). Combining these volumes with decreasing trade volumes in Figure 1.3 is consistent with the survey results. Some studies regarding the trade finance try to reveal with available data whether these fluctuations derive from demand or supply fall as can be seen in the following passages.

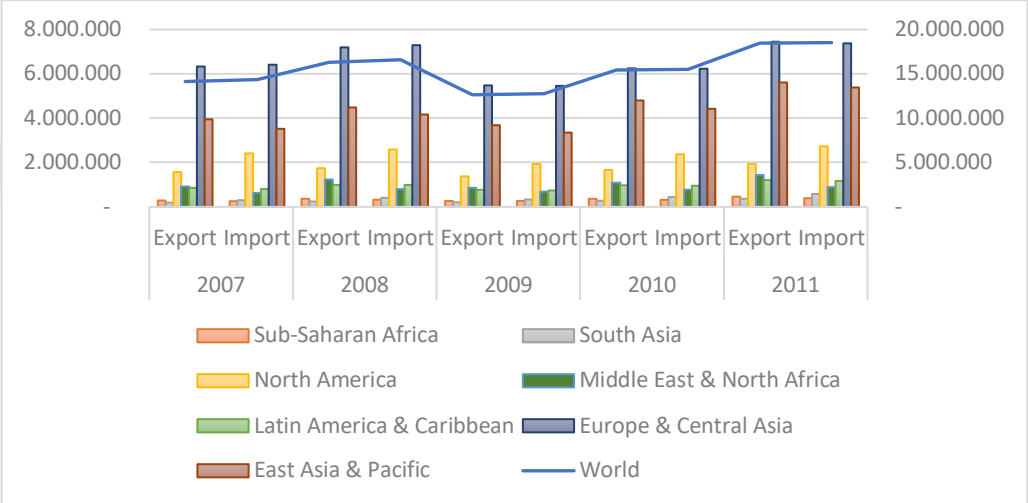
Trade finance has a notable impact on reciprocal export flows in developing regions except Latin America (Brambila-Macias, Massa, & Salois, 2011). Amiti and Weinstein (2011) examined the trade finance in terms of export and suggested that trade finance has an impact on it. Low performance of exporter’s bank, especially in crises, and export performance have a causality such that unhealthy banks cannot provide proper funding for the exports. Exports fall more severely than domestic sales when the customers’ banks have problems. Additionally, the exporters depend on financial institutions and, especially on banks since the international trade is riskier than domestic trade when it comes to collecting payment. Also, the time between

suggest that 80% of trade relies on various trade finance products rather than only Open Account, e.g: “Some 80% to 90% of world trade relies on trade finance (trade credit and insurance/guarantees), mostly of a short-term nature.” (WTO, 2009); “Today, up to 80 per cent of global trade is supported by some sort of financing or credit insurance.” (WTO, 2016); “Estimates from various sources, including the World Trade Organization (WTO), suggest that 80% of global merchandise trade flows are dependent upon trade finance and SCF, which for practitioners includes financing as well as effective risk mitigation” (Malaket, 2020).

[28] Message Type (MT) 700 volume in SWIFT.

shipment and payment necessitates working capital. So, if the banks fail, exporters may probably fail, too. Amiti and Weinstein add that exports of Japan decreased 18 percent in Fiscal Year (FY) 2008 (which ended in March of 2009) and 19 percent in FY 2009 hand in hand with the decline in trade finance (Amiti & Weinstein, 2011: 31).

Figure 1.3 Merchandise Import and Export Regionally (In Million US Dollar)



Source: The World Bank: 2019, World Development Indicators,
DataBank: https://databank.worldbank.org

Chor and Manova (2012) supports Amiti and Weinstein's (2011) findings by using US import data and proposing that constricted trade credits had an impact on trade decline, specifically firms that were more vulnerable to the financial shocks because of the need for external finance. Bricongne, Fontagné, Gaulier, Taglioni, & Vicard (2012) reach similar findings with Chor and Manova (2012) by using monthly data for small and large French exporters that credit constraints were one of the important problems for declining exports in external finance dependent sectors. Additionally, Iacovone, Ferro, Pereira-López, & Zavacka (2019) proposes similar findings as increase in exports is far below from others which depends less on external finance by noting that results are based on bank financing dependent sectors rather than trade credit dependents. Paravisini, Rappoport and Schnabl (2015: 24) suggested that 10% fall in bank-intermediated financing causes 8% fall in country's export. Hwang & Im (2012) suggests that trade finance shortage in 2008 crisis did not affect

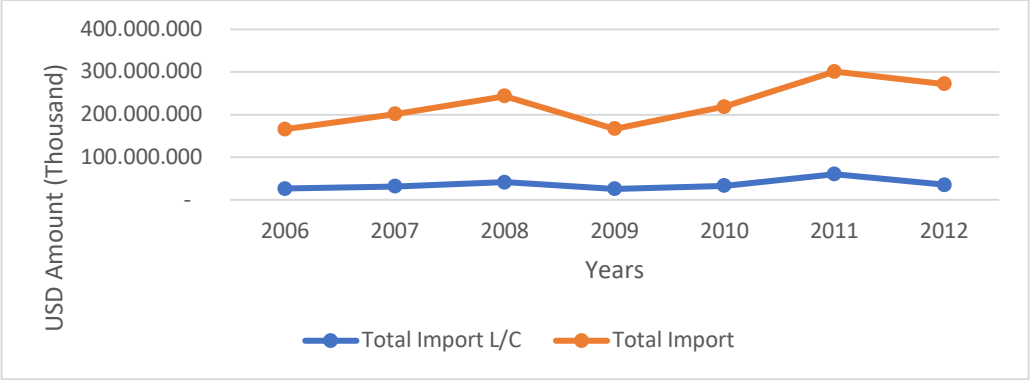
much the exports of Korea although authors note that it should be justified with further studies.

Apart from the above approaches, there is another linkage between exports and trade finance. It is the financing of exports via imports as raw material of exports. When trade finance is not available, imports will be decreased. Therefore, exports will decrease (The Commonwealth Treasury of Australia, The Task Force, 1999: 49).

Although export occupies a substantial place in trade finance literature, import takes a smaller portion in studies. It might stem from notoriety of import for growth when compared with export and it is negativity for current account. However, imports are important for both meeting the needs of a nation and exports of it. Turkey is a good example for trade finance and import case because of its foreign trade structure. It imports goods to meet the country's needs together with to use as component for its exports. Just like IMF-BAFT or other institutions, a think-tank in Turkey, TEPAV, conducted a survey to fill the blanks in trade and trade finance relationship in Turkey. The survey unveiled that counterparts' financing problems take the second most important place for decline in Turkey's exports (Acar, 2009: 17). It might be deduced from that, importing for raw materials is also declined. Additionally, payment type matters, too. Since cash in advance dominates import payments in Turkey, importers need immediate financing. Nevertheless, because of the tight liquidity, shortage of credits, risk aversion and diminishing internal resources it might have become harder to find financing for imports. From 2008 September to December, total value of import L/Cs of Turkish banks fell by 25%, to $15.6 billion (Ibid: 4, 12). Figure 1.4 and 1.5 shows changes in the import and its financing via L/Cs in Turkey. This situation is also related with the main question of trade finance literature regarding crisis and contraction in trade, that is either fall in demand or supply was the reason of the decline in trade.

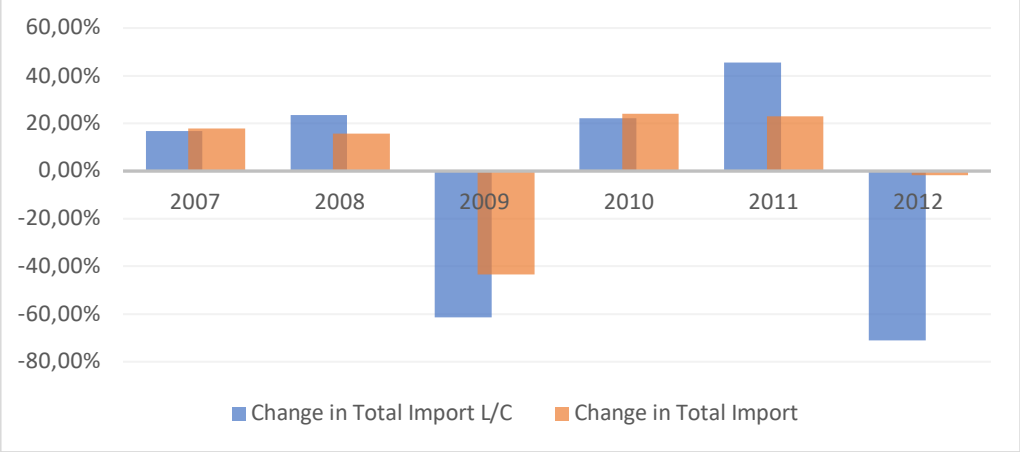
Indonesia is a fitting example apart from Turkey for trade finance and import case in terms of export. As an emerging country its exports are affected from decreasing imports as inputs due to the declining of confirmed L/Cs in 1997 Asian Crisis (Staff Team from the JBIC, 2005: 76).

Figure 1. 4 Turkey Import vs Import L/C



Source: TURKSTAT, http://www.tuik.gov.tr/

Figure 1.5 Turkey Import vs Import L/C Year-to-Year Change



Source: TURKSTAT, http://www.tuik.gov.tr/

1.3.2 Supply or Demand-Side Cause of Trade Constraint

Inquiries on trade finance increased after the 1997 and 2008 crises regarding its role in crisis as 'guilty' or 'innocent' while the spotlights turn to it. Although Pisani-Ferry & Santos (2009) suggested that it is hard to find the outcomes of trade finance shortage in a short period of time, works on trade (finance) constraint after 2008 crisis increased about whether supply side (trade finance and banks) or demand side (consumption decline and firms) caused the fall in trade and scarcity of its finance.

Levchenko et al. (2011) suggests that there is limited evidence that financial problems caused the trade decline. Their evidence is based on US exports and imports

on a sectoral basis that sectors rely heavily on trade credit, external financing, countries which have financial problems and lastly interfirm credit (Ibid: 134). Paravisini et al. (2015: 27) found that the main reason for declining trade was demand fall rather than bank-intermediated financing for export side. Asmundson et al. (2011) proposes that trade finance does not have a considerable effect on the decline of trade during the 2008 crisis. Their argument basically depends upon the argument that despite rising costs of trade finance, decline in trade finance value was proportionally less from the decline in trade value. BIS calculation supports their finding. Decline in value of L/Cs from July 2008 to 2009 for four countries; Taiwan, Korea, Spain and Turkey, is 45% on average while trade decline is 38% (BIS, 2014: 18). Thus, the rate of available trade finance increased for available trade. Bricongne et al. (2012) supports the demand side problems on trade. They propose that trade decline was mostly because of demand side problems. According to Robert Zoellick, former World Bank President, trade finance's effect is overestimated in trade: "The shortage of Trade Finance is responsible for 10-15 percent of decline in Trade." (Financial Times, 2009). Chauffour & Farole's (2009: 2) findings support Zoellick: "Data from the IMF indicate that trade volumes declined by about four times faster than trade finance volumes during the period October 2008 through January 2009.". The famous IMF-BAFT survey in 2009 confirmed above findings. Demand fall was in first rank by far among others in trade decline (IMF-BAFT, 2009: 7). Some findings of TEPAV survey reveals the same with IMF-BAFT (2009). Decline in exports in Turkey due to 2008 crisis stems firstly from decline in global demand rather than trade finance problems according to Turkish exporters (Acar, 2009: 17). Increasing the available amount of trade finance support could be useless according to some authorities. For instance, former Secretary General of the Berne Union Malcolm Stephens stated that:

> "… the traditional role of export credit agencies is to support trade and to facilitate trade. They are less effective in, somehow, trying to create or initiate trade, especially, in circumstances where neither importers nor exporters are really willing (or able) to trade with each other." (Stephens, 1998: 16)

So, 'creating demand' was not possible via incentives. Stephens's thoughts are supported by the findings of van der Veer K. J. (2010) and Felbermayr and Yalcin

(2011). It is also clearly proposed that trade finance slowdown is not a cause, it is a result. European Australian Business Council's (EFIC) Managing Director and CEO Angus Armour said that:

> "… there are anecdotes of people having difficulties in obtaining trade finance, but EFIC 'is struggling' to find data to confirm these reports. At this point, trade is falling because the global economy is slowing, and trade finance is reflecting the slowing economy." (Asia Today International, 2008: 18, as cited in Humphrey, 2011).

Opposite views were also existing. The Director-General of the WTO Pascal Lamy accepted that "the market for trade finance has severely deteriorated" (WTO, 2008a). He summoned WTO Expert Group for Trade Finance to meet two times in 2008 to incorporate international organizations, ECAs and MDBs for cooperation and financing the trade (WTO, 2009).

When there is no crisis, Brandi and Schmitz (2015b: 15) suggests that trade finance availability, based on the trade credit insurance data from Berne Union which is the most sizeable data set, has an important effect on trade. In contrast, Korinek, Le Cocguic, and Sourdin (2010: 5) suggest that the availability of trade finance has not a meaningful effect on trade flows out of crises, whereas the magnitude of effect is tripled in crisis periods. In crisis times, although not as much as demand fall, trade finance shortage had a noteworthy impact on trade drop: 10% decline in trade finance led to nearly 4% decline in import (Ibid). They suggest that almost one third of decline in total global trade was caused by trade finance drop according to their dataset[29]. According to The World Bank, trade finance may be responsible between 10% and 15% decline in international trade since the middle of 2008 while the 85-90% is from demand fall (Financial Times, 2009). Trade finance shortage, particularly L/Cs and insurance, has an impact on trade downsizing (Stephens, 1998; IMF, 2003; Auboin & Meier-Ewert, 2003; Auboin, 2004). Trade Finance both finance the exports and imports. However, imports are more damaged if the crisis causes output, consumption

[29] Their dataset is Berne Union export credit insurances and covers between the Q2 2008 and Q1 2009.

and investment fall evenly after a credit squeeze (Castello & Gruber, 2015). According to Trade Finance and the Commonwealth, Commonwealth Finance Ministers Meeting Report (2013: 1), whereas trade finance is ignored in trade policy thanks to its large scale it has an essential role in directing economic policies and global trade. Lack of trade finance does not only hinder the potential profit. It may also hurt the trade or production process along with relationship with counterparty (UNCTAD, 2012: 3).

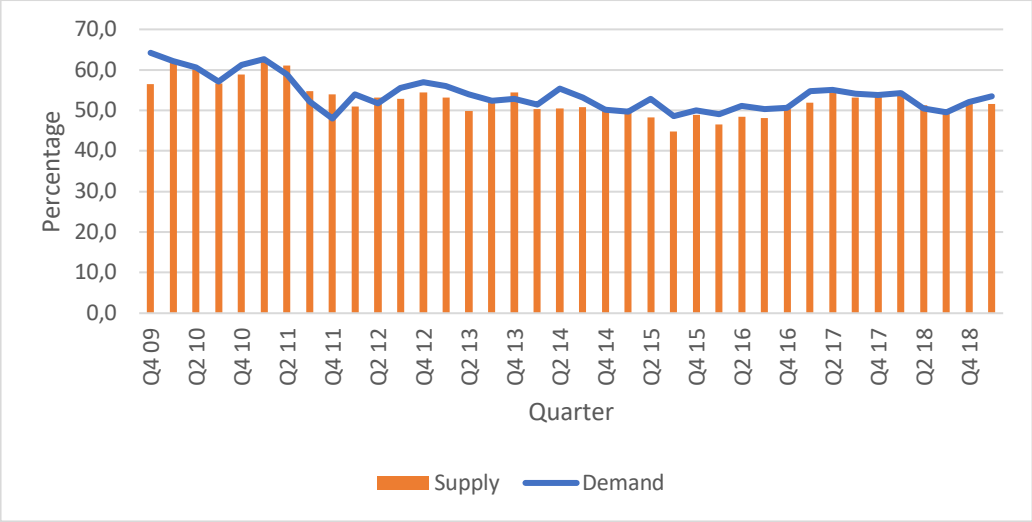
According to the TEPAV survey, first limitation for export was "lack of new orders" with 90,5% of firms pointing out while the second and third were "lack of trade finance on the buyer's side" and "lack of finance from banks" with 57,1% and 23,8% respectively (Kalkan, Dundar, & Dinccag, 2010: 3).

Mora and Powers (2011) argues that trade finance has a "moderate role" in declining trade. Although the statements of the heads of the IFIs about trade do not point to any problem with trade finance right after the 2008 crisis, it is a very sound question to ask why governments provided a considerable financing amount for trade via IFIs. A possibility about this contrast is fear of trade collapse due to lack of liquidity (Malouche, 2011: 178) and "… memories of the Great Depression" (Hallaert, 2011: 252).

Apart from using trade as a demand and trade finance as a supply variable, trade finance can also be divided for supply and demand. IIF's "Emerging Markets Bank Lending Conditions Survey" which started at the end of 2009 can be helpful to observe trade finance environment in terms of both demand and supply for trade finance in Figure 1.6. Although this survey is not representing the first year of crisis, it may be counted as a proxy for trade finance supply and demand. For 2009 Q4, it is obvious that there was a high demand and low supply for trade finance.

These findings suggest that even though trade finance is not the primary cause for trade decline, at least it has a substantial effect on the fall.

Figure 1.6 EMBLCS, Diffusion index (50=neutral)



Source: IIF, Emerging Markets Bank Lending Conditions Survey - 2019Q1

CHAPTER TWO
TRADE FINANCE AND EMERGING MARKETS IN CRISIS ERA: CHALLENGES

For the 2008 crisis, banks were blamed to trigger the massive collapse (Minford, 2015). In August 2007, nearly one year before the crisis, most of US Banks retracted huge liquidity from abroad, the credit risk boosted, creditworthiness among banks and all kinds of financial markets including swap markets for hedging crashed (Allen & Moessner, 2010). After the collapse of Lehman Brothers, Washington Mutual, and AIG, the panic stemming from the crisis deepened. Even worse, the banking crisis coupled with the recession reduced credit demand and supply, including syndication loans, which fell 47% and 79% respectively in the Q4 2008 compared to the Q3 2008 and Q2 2007 (Ivashina & Scharfstein, 2009). Even though there stands EBRD's 100% risk coverage, exporters and their banks were abstaining from conducting new business due to insufficient liquidity until early 2010 (Turner, Mokaddem, & Ben Ahmed, 2010: 14).

In an environment of this kind, trade finance is affected from the crisis just like other types of financing. It is suggested that international financial constraints create a trade finance problem such that a 1% increase in Financial Conditions Index and US Dollar funding cost cause about 7% and 4% fall in trade finance expansion, respectively (Serena Garralda & Vasishtha, 2015: 16). When a crisis hits a country, trade finance shortage appears as a result of the crisis (The Commonwealth Treasury of Australia, The Task Force, 1999: 49). However, "These problems are being felt most acutely by traders and banks in the emerging market economies" (WTO, 2008a). They were always sensitive to the international financial markets that cause trade problems (Auboin, 2004: 6). In 1990s, financial crisis periods particularly influenced EMs (Auboin & Meier-Ewert, 2003: 4). Despite all, it is interesting that EMs have not drawn enough attention for trade finance. (Brandi & Schmitz, 2015b: 1).

EMs depend intensely on bank-intermediated trade finance (Wang & Tadesse, 2005: 1). The dysfunction of the trade finance market is briefly described by Berman and Martin (2012) over the famous bank-intermediated instrument, L/C:

> If confidence or liquidity is missing at any point along the chain from importer to exporter, the mechanism will not function. The importer[’s] creditworthiness may be undermined; the issuing bank may have insufficient funds to extend credit to the importer. The confirming bank may also lack confidence in the issuing bank.” (Berman & Martin, 2012: 333).

The highlighted concepts above are trade finance’s basic functions: The confidence and creditworthiness are related with risk while the liquidity is connected to financing. Pascal Lamy was referring to these two key measures regarding the problem (WTO, 2008a). Humphrey’s suggestions are similar to Berman and Martin. The confirming bank may have lack of confidence for issuing L/C and try to scale down the exposure from specific countries. (Humphrey, 2011: 151).

2.1 Trade Finance Shortage

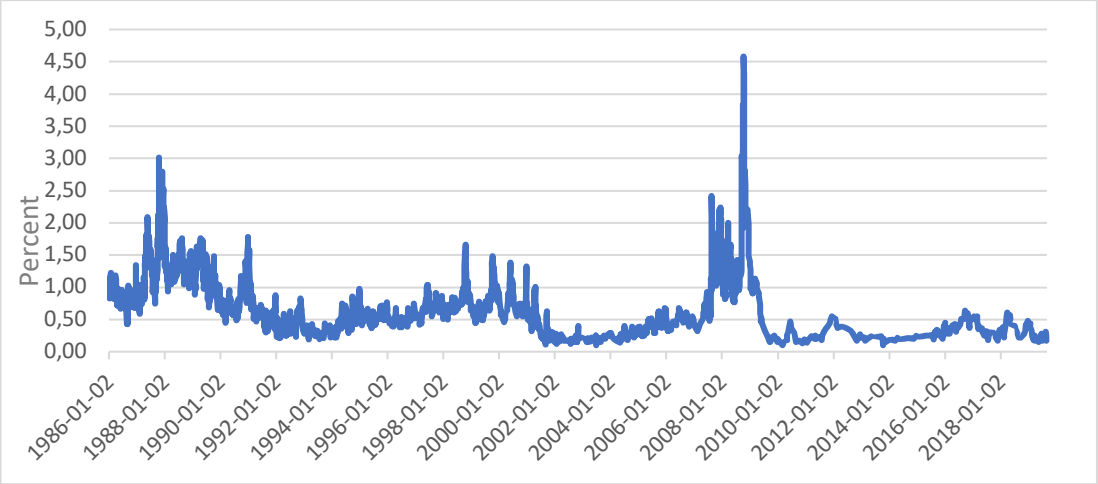
Integration of financial markets has increased in 1990s worldwide (Issing, 2000). Along with globalization of finance, international banking and trade was on the rise globally (World Bank, 2018: 7). Increasing trade increased cross-border financial flows in turn such as payment services, export credit guarantee or insurance (Lane & Milesi-Ferretti, 2008: 329). Consequently, until crisis in 1990s, there was no apparent sign of trade finance scarcity in financial markets due to slow paces of trade and financial flows. Nonetheless, because of expanding global debt and therefore increasing risk of insolvency, trade finance shortage revealed in times of crisis at the end of 1990s (Fingerand & Schuknecht, 1999: 44). In 1997 Asian crisis, trade finance decreased due to high fluctuations on exchange rates and country risks whereas in 2008 global crisis trade finance decreased due to global credit limitation (Hwang & Im, 2012: 4). During the South American Crisis in 2002 in Brazil, it was approximated that trade finance decreased 30-40%, international banks’ limits fell from $22 billion to $16 billion, accepted tenors 360 days to 30 days as well as pricings hit London Inter-

Bank Offered Rate (LIBOR) plus 600 bps in comparison to the previous year (Jordan, 2005: 85).

When the 2008 crisis hit, there had already been complaints on trade finance shortage discussed in WTO, Working Group on Trade, Debt and Finance (WTO, 2008b). On the global scale, available trade finance was reduced around 25% from 2008 Q2 to 2009 Q1 (Korinek, Le Cocguic, & Sourdin, 2010). The unmet demand for trade finance was estimated between $25-$500 billion (Chauffour & Farole, 2009: 6).

The following Figure 2.1 is the Ted Spread that can be seen as how the short term financing costs behaved. TED Spread is the Treasury Eurodollar spread which is calculated as 3-Month US Treasury Bill minus 3-Month LIBOR. It is a proxy to indicate the liquidity constraints and credit risks (Hwang & Im, 2012: 12). The liquidity squeezing and credit risk have never hit as high as in 2008 crisis, even in the course of 1997 crisis. Because risk and liquidity are related with two main functions of trade finance, collapse of trade finance market was nearly inevitable.

Figure 2.1 TED Spread



Frequency: Daily, Not seasonally adjusted,

Source: Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/

In addition to the 2008 crisis, Eurozone Debt Crisis in 2011/2012 was also a checkpoint for trade finance. Because of funding problems, especially in terms of US Dollar for European Banks, trade finance was in a bottleneck and attracted attention again (BIS, 2014: 3). This obstacle has caused Asia syndication loans not to be rolled

over by European Banks as well as decreasing trade finance availability (Azis & Yarcia, 2015: 175).

Table 2.1 enables us to compare the 2008 crisis and Eurozone crisis. While 2008 crisis affected almost all countries, Eurozone crisis had an impact only on Europe according to available data. Taking into consideration that activities of European banks were replaced by Japanese Banks in Asia (ibid), EUR has a low transaction volume in trade finance as will be seen in section 2.7, and EMs would somewhat strengthen their financial system against external shocks after 2008, EMs seem in relatively well circumstance in 2011-2012.

Table 2.1 Changes in Trade Finance, L/C and Trade[1]

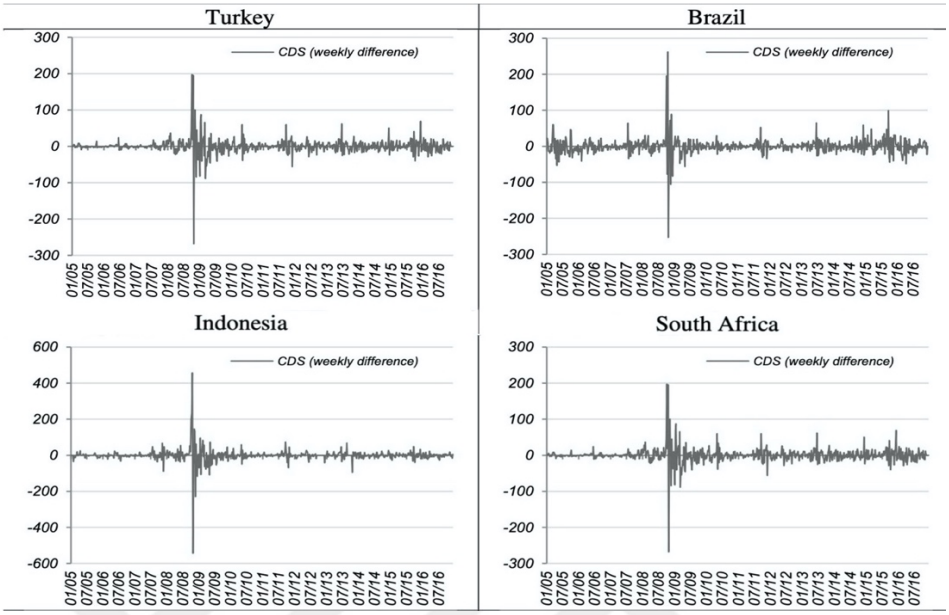
In Percent	Q3 2008-Q1 2009			Q2 2011-Q2 2012		
	Bank-Intermediated (Stocks)[3]	L/C	Trade	Bank-Intermediated (Stocks)	L/C	Trade
Australia	-20		-34	-2		2
Brazil[2]	-34		-47	0		-4
China	-29		-41	15		9
France	0		-25	0		-9
Germany	-30		-30	-20		-10
Hong Kong	-29		-33	15		2
India	-13		-34	5		-4
Italy	-12		-26	-13		-15
Korea	-32	-45	-40	0	-12	-3
Mexico	5		-38	32		6
Spain	-32	-35	-34	-19	-19	-11
United Kingdom	-7		-36	-15		-2
United States	-24		-34	19		4

Note: [1] Relative change in the stock of trade finance exposures from end-Q3 2008 to end-Q1 2009 or from end-Q2 2011 to end-Q2 2012. National data are converted to US dollars at end-quarter exchange rates. Changes are therefore influenced by valuation effects. [2] Changes in the quarterly flow of new trade finance loans. [3] According to the (BIS, 2014) Glossary, Bank-intermediated products include pre-export finance, import and export loans, SCF, etc.

Source: BIS: 2014, Trade finance: developments and issues. CGFS Papers No. 50., p.17 https://www.bis.org/publ/cgfs50.pdf

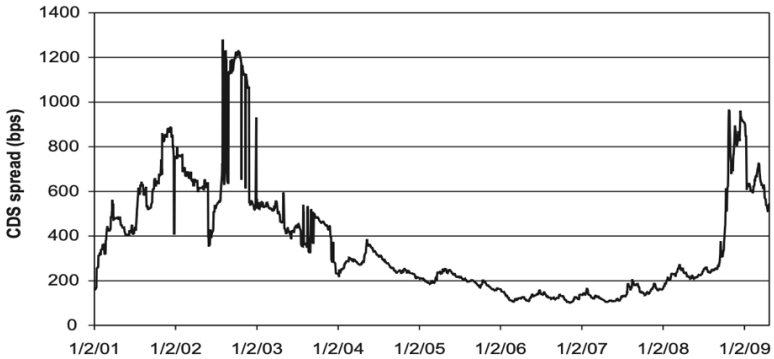
Figure 2.2 shows CDS values on selected country basis while Figure 2.3 shows the EMs' CDS values overall. Increased CDS means increasing risk in EMs.

Figure 2.2 CDS Values of Selected EMs



Source: Özmen, M. Utku & Yılmaz, E.: 2017, "Co-movement of exchange rates with interest rate differential, risk premium and FED policy in “fragile economies””, Emerging Markets Review, Elsevier, vol. 33(C), p. 176-177.

Figure 2.3 CDS Values of EMs



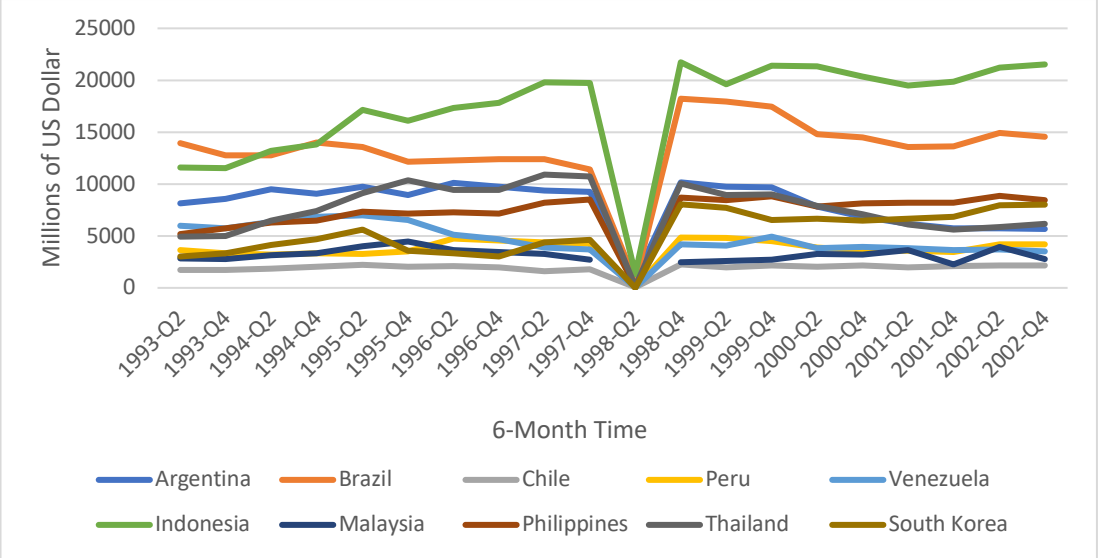
Note: The figure shows “Time-series behavior of mean CDS spreads of an equally- weighted portfolio formed with all countries” in the sample[1].

Source: Ismailescu, I & Kazemi, Hossein B.: 2010, The Reaction of Emerging Market Credit Default Swap Spreads to Sovereign Credit Rating Changes (October 29, 2009). Journal of Banking and Finance, Vol. 34, p. 2864.

[1] In the study, the sample consist of following countries: Argentina, Brazil, Chile, China, Colombia, Ecuador, Egypt, El Salvador, Indonesia, Israel, Korea, Lebanon, Malaysia, Mexico, Panama, Peru, Philippines, South Africa, Thailand, Turkey, Venezuela, Vietnam

The 2008 crisis was not the first in trade finance shortage for EMs. The market had experienced it during Latin American financial crisis in 1980s, credit crunches in 1990s and Asian crisis in 1997 (Hwang & Im, 2012; Alverez & Flores Zendejas, 2014: 129, Auboin, 2009a: 1). Trade finance declined dramatically in the 1997 Asian Crisis for South Korea, Indonesia, Philippines and Thailand; 1998 crisis of Russia; Latin America Crisis for Argentina and Brazil -which tenors are receded to one month from one year-; 2001 crisis of Turkey (Wang & Tadesse, 2005: 1, 7). Figure 2.4 shows the trade finance stocks in several EMs in 1997 crisis. According to Herger (2009), trade finance fell 16% in 1997 Asian Crisis.

Figure 2.4 Stocks of total trade finance in selected EMs



Note: Venezuela was involved in MSCI Emerging Markets Index until 2006.

Source: Auboin & Meier-Ewert: 2003, Improving the Availability of Trade Finance during Financial Crises. Geneva: World Trade Organization (WTO), Economic Research and Statistics Division, p.18

Every crisis brought harder conditions for EMs. Since available international trade funds move together with the dynamic risk level (IMF, 2003: 5), when the crisis hit the EMs as fragile countries, the funds evaporate. Even in cases the funds did not completely dissappear, the limits became tighter for EMs. Trade finance has a greater effect on EMs' exports as a means of growth (BIS, 2014: 25). International trade of EMs depends upon trade finance even though it is at the exporter category in so far as exports are based on imports (IMF, 2003: 3). Since EMs are more dependent on trade

finance, if the trade finance declined in EMs the exports fall more than advance economies.

Table 2.2 and 2.3 shows the short-term credit outflows and liabilities from several countries including EMs.

Table 2.2 Comparison of Cross-border Short-term Trade Credit[2]

(US$ billion)									
Country	**2005**	**2006**	**2007**	**2008Q1**	**2008Q2**	**2008Q3**	**2008Q4**	**2009Q1**	**2009Q2**
Developed Markets									
Australia	26.4	28.7	58.7	59.0	71.7	71.3	64.4	66.8	79.4
Canada	5.7	6.1	6.9	6.9	6.9	6.6	5.5	5.2	5.7
France	87.8	96.6	107.4	116.9	117.5	105.3	100.9	123.0	129.6
Germany	918.7	1,109.1	1,354.4	1,596.9	1,550.4	1,469.7	1,211.9	1,146.6	1,198.9
Japan	433.3	382.1	359.1	410.3	365.0	369.3	409.8	400.4	483.5
UK	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.6	1.6
US	492.3	557.3	726.0	734.0	737.9	778.9	907.8	802.0	796.5
Hong Kong	9.0	7.4	9.5	10.7	10.1	9.9	9.3	7.2	8.6
Emerging Markets									
Argentina	0.3	4.6	5.1	5.7	7.6	7.4	7.7	7.6	–
Brazil	16.5	16.7	31.0	31.1	33.5	38.2	31.2	28.5	32.4
Chile	6.2	8.3	9.2	9.9	13.2	14.1	10.3	8.8	9.9
Czech Rep.	3.8	4.5	6.6	6.4	8.0	7.6	6.9	5.8	6.2
Hungary	6.4	7.6	13.0	4.7	5.6	5.7	4.4	4.4	5.5
India	NA	25.1	36.7	43.2	45.6	46.8	42.6	40.2	37.1
Indonesia	0.7	0.8	0.7	1.0	1.3	1.7	1.6	1.2	1.2
Israel	7.7	9.0	11.6	11.3	11.6	11.4	9.3	7.0	7.1
Korea	51.7	95.1	130.2	143.5	143.3	155.6	111.7	102.8	104.4
Malaysia	10.2	8.1	12.6	23.4	26.4	27.0	20.6	21.6	21.5
Mexico	8.4	9.2	9.7	9.9	10.2	10.1	9.2	9.1	8.1
Poland	9.7	12.6	17.0	21.4	22.7	20.7	18.1	15.7	17.0
Russia	8.2	17.6	23.9	26.3	29.8	34.6	21.3	16.1	12.9
S. Africa	5.5	7.5	10.7	9.6	10.3	11.6	10.6	9.8	9.2
Thailand	9.4	9.6	11.1	13.0	13.9	13.6	12.1	10.3	10.7
Turkey	26.8	25.6	28.6	30.0	34.1	36.1	31.5	28.4	26.6

Note: Short-term means up to 1 year in terms of tenor and it includes open account as well as bank and financial institution loan.

Source: RBI: 2010, Report on Currency and Finance 2008-09. Mumbai: Reserve Bank of India, p.103

[2] It includes Open Account payment types. For further details, please see: https://www.rbi.org.in/scripts/BS_PressReleaseDisplay.aspx?prid=17700

Table 2.3 International Short-term Liabilities Remaining Maturity

(US$ billion)										
Country	**1990**	**2000**	**2005**	**2007**	**Mar-08**	**Jun-08**	**Sep-08**	**Dec-08**	**Mar-09**	**Jun-09**
Developed Markets										
Australia	25	35	54	119	118	125	110	81	95	107
Austria	–	49	87	98	116	111	97	67	64	59
Canada	–	76	129	201	219	190	186	191	199	197
France	–	250	610	1,148	1,288	1,313	1,155	979	923	921
Germany	–	356	685	938	1,086	1	920	739	750	736
Japan	–	193	410	405	444	400	365	352	368	480
UK	–	731	1,53	2,409	2,704	2,404	2,175	1,789	1,713	1,796
US	–	531	864	1,302	1,374	1,23	1,219	1,075	1,011	982
Latin America EMs										
Argentina	7	39	7	11	12	12	11	11	11	12
Brazil	22	34	27	52	55	68	62	48	53	56
Chile	4	10	11	18	20	21	23	19	17	18
Mexico	18	22	22	25	28	28	30	31	34	33
Europe EMs										
Czech Republic	–	6	11	17	21	19	19	15	13	11
Hungary	3	5	15	27	31	28	29	30	27	28
Poland	3	8	16	26	31	31	32	32	26	29
Russia	–	11	46	93	97	100	97	78	74	81
Emerging Asia										
China	9	19	61	121	138	160	148	102	121	118
India	4	9	31	78	80	83	83	69	66	69
Indonesia	13	20	18	29	31	31	32	28	26	27
Korea	2	7	16	21	28	32	23	17	15	15
Malaysia	20	33	53	127	157	152	145	100	110	114
Philippines	3	7	10	11	12	11	10	7	7	8
Thailand	9	10	11	9	10	10	10	10	9	10
Other EMs/NIEs										
Singapore	134	65	78	123	142	144	138	106	108	109
Hong Kong	131	70	70	93	110	110	99	82	86	89
Israel	2	3	5	5	6	6	7	6	7	7

Note: NIEs stands for Newly Industrialized Countries

Source: RBI: 2010, Report on Currency and Finance 2008-09. Mumbai: Reserve Bank of India, p.105

In 2008 crisis, one of the reasons for trade finance shortage was that, along with liquidity and reinsurance contraction, secondary market of trade finance froze as falling from monthly $200 billion to $20 million for large banks (Auboin, 2009a: 2). Smaller banks also suffered because of low demand for secondary market as they

cannot obtain funding via 'paper' (Turner, Mokaddem, & Ben Ahmed, 2010: 8). One of the reasons for liquidity problem is the lack of securitization in EMs due to relatively thin financial markets (Auboin & Meier-Ewert, 2003: 9). Indeed, EMs had a trade finance shortage even in the post-crisis era (Brandi & Schmitz, 2015b: 1).

According to the UNCTAD, EMs[3] have two important drawbacks in shortage of trade finance as weak institutions both financially and non-financially, and dependence on foreign funds (UNCTAD, 2012: 3). At this point, MDBs tried to help to the banks and financial institutions via TFFPs.

In general, basic causes of trade finance decline may be organized as follows:

- Risk in parallel with leveraging movements of banks. Thus, in crisis times, de-risking means deleveraging on funds for banks in EMs,
- Decreased insurance and reinsurance of trade credits,
- Herding of financial institutions,
- Fragile banking system (Wang & Tadesse, 2005: 4, 5).

2.2 Trade Finance Costs

Spreads after the 2008 crisis ascended to 300–600 bps from 10– 20 bps cataclysmically in some countries (UNCTAD, 2012). Even the shorter tenor pricings were incredibly higher than before. It is of course related to risk and liquidity scarcity. Risk, lending rates and pricing inherently increase in crisis times as well as liquidity falls. The overall pricing in EMs was shocking. The prices of L/Cs issued in EMs with 90 days tenor "have gone through the roof" (Auboin, 2009a: 2) by hitting 250–500 bps from 10–16 bps (Auboin & Engemann, 2013b: 14). Developed markets were resillient to this shock to some extent. Due to the high risk of EMs, the prices unproportionally increased compared to the developed countries. Malouche's findings display the issue:

[3] In the paper, it is developing countries. The term EM is specifically used for BRICS. However, in a broad sense they used developing countries as a substitute for EM.

> As of December 2008, trade finance deals were offered at 300-400 basis points over interbank refinance rates—two to three times more than the rate a year earlier. The cost of Letters of Credits was doubling or tripling for buyers in many countries, including China, Turkey, Pakistan, Argentina, and Bangladesh." (Malouche, 2009: 5).

As an EM, Turkey also suffered from the costs. 40% of surveyed firms by TEPAV stated that cost of financing the international trade rose from 2008 Q4 to Q4 2009 and the 7,5% of them delayed the trade deal because of cost (Kalkan, Dundar, & Dinccag, 2010: 3). Not only firms but also banks were affected from costs. 60% of surveyed banks stated that pricings of trade finance instruments rising because of increasing cost of funds (ibid: 4). Other EMs were facing problems with high pricings, too. In Brazil and Korea, prices for trade finance instruments such as L/Cs raised between 200 and 300 bps. while India is behind of them (BIS, 2014: 18,19). Brazil and Korea were also affected from before 2008 crisis. In 1997 Asian crisis led to 50% decrease in trade credit in Korea and 2002 South America crisis caused increasing prices between 100-600 bps in Brazil (IMF, 2003: 3). Indonesia was also experienced rising costs in 1997. Table 2.4 shows the pricing changes in Indonesia before, during and after 1997 Asian crisis.

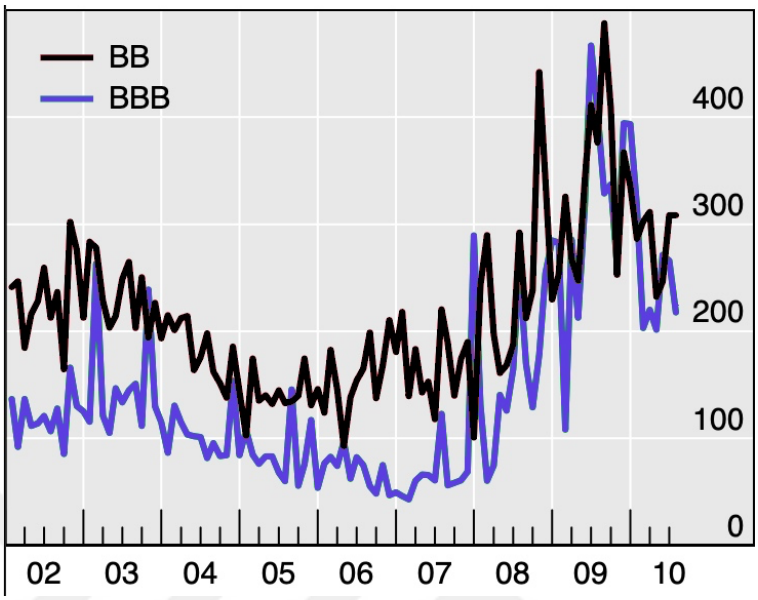
Table 2.4 Trade Finance Pricing in Indonesia

	1995	1996	1997	2002
Interest rate[1]	10%	9,5%	9,5%	4,5%
Discount rate[2]	LIBOR+3%	LIBOR+3%	LIBOR+3%	LIBOR+3%
L/C conf.[1] fee for oil	<1%	<1%	2%	0,75%
L/C conf. fee for non-oil	1%-3%	1%-3%	4%-6%	1%-3%
Credit Line	Unlimited	Unlimited	Limited[3]	Mix[4]

[1] Confirmation
Source: Jacobs, P. (2005) Indonesia's Experience in Dealing with Trade Finance Shortfalls during Financial Crisis J.-Y. Wang, & M. V. Ronci, Access to Trade Finance in Times of Crisis (s. 57-62). Washington, DC: **International Monetary Fund**, p.59

In addition to the L/Cs, syndication loan pricings were on the rise as can be seen in Figure 2.5.

Figure 2.5 Yearly Syndicated Loan Spreads

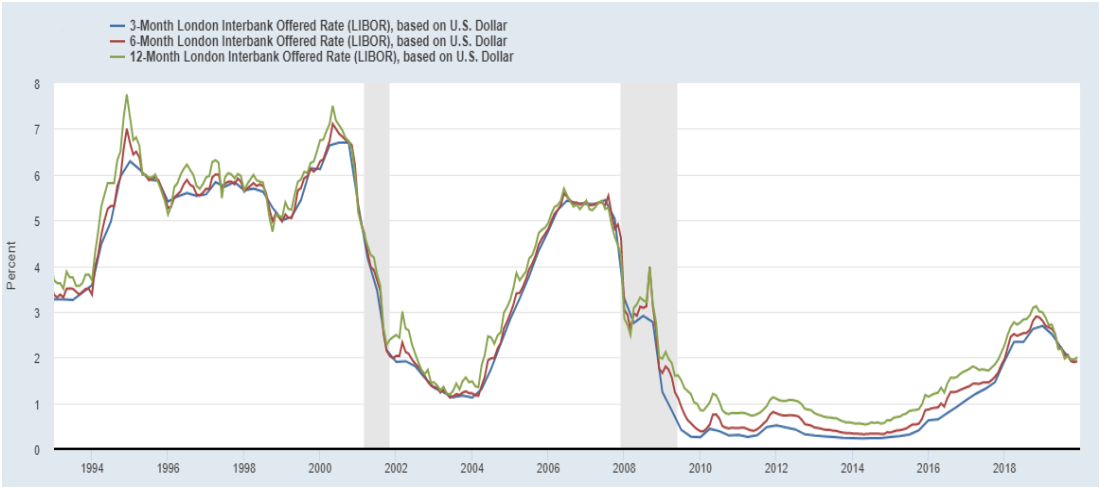


Note: Bps

Source: Federal Reserve Board; IMF, International Financial Statistics; Dealogic Loan Analytics as cited in Ibid, p.43.

Not only spreads but also LIBOR and The Euro Interbank Offered Rate (EURIBOR) as basic funding rates among banks were increasing in times of crisis. Figure 2.6 and 2.7 shows the levels of LIBOR and EURIBOR.

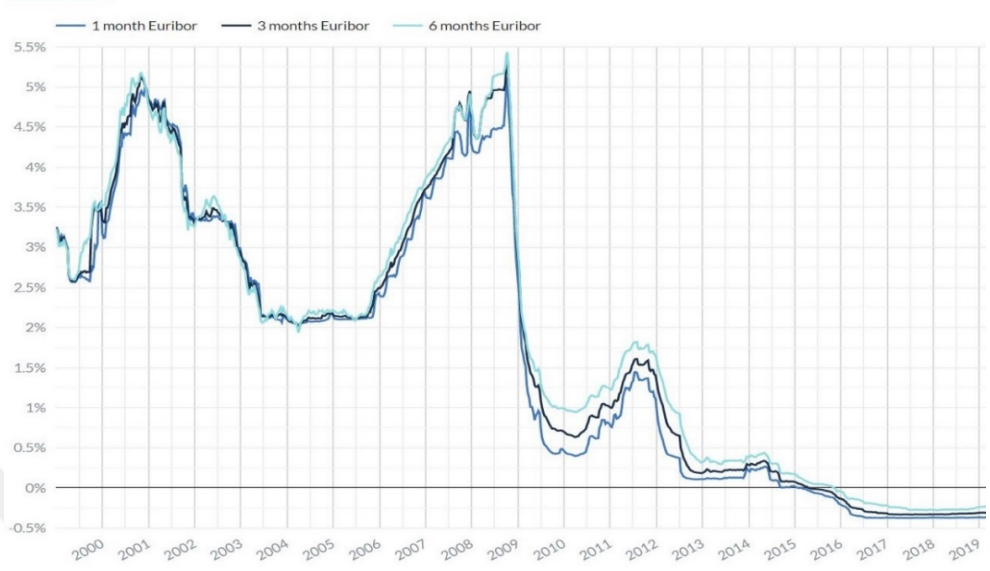
Figure 2.6 3-Month, 6-Month and 12-Month LIBOR Rates



Note: Shaded areas indicate United States recessions

Source: Federal Reserve Bank of ST. Louis, https://fred.stlouisfed.org

Figure 2.7 1-Month, 3-Month and 6-Month EURIBOR Rates



Source: Triami Media: 2010, https://www.euribor-rates.eu/en/euribor-charts

Since there is no exact pricing methodology for LCs in the literature, IFC's pricing model on GTFP might be a proxy for the changing market and transaction conditions:

> […] $10 million increase in transaction size would lower the price by 30 basis points. Conversely, an increase in the country risk score of 10 points (on a 100-point scale) would increase the price by 10 basis points. A deterioration of the credit risk rating of an issuing bank by a single notch (from, say, 3A to 3B) would increase the price of the guarantee by 13 basis points. (IEG, 2013: 32).

Specifically, as an important part of the trade finance, the cost of L/Cs rise because of increasing risk and cost of funds (Ahn, 2011: 6; IMF-BAFT, 2009) just as in 2008. Dorsey indicates that in an IMF survey in 2008 70% of respondent banks admitted that cost of L/Cs increased (Dorsey, 2009).

High risk causes withdraw of large amount of credits from market and increasing cost for the rest of them. Thus, trade will be affected from this. Schmidt-Eisenlohr's suggestion support that high cost of financing leads to decreasing trade volume between two countries (2013: 103). It can also create a sequence of problems with a short time impasse as decreasing trade volume leads to a lower need for

financing and lower financing leads to downsizing financial market. The results of World Bank Firm and Bank Surveys in 2009 and 2010 are in parallel with these interrelated problems. Albeit the decreasing pricing of trade finance instruments within 2010, they were still higher than pre-crisis period because "banks remained relatively risk averse because they needed to deleverage and reassess underwriting risks." (Malouche, 2011: 173)[4].

Not only import side financing but also export side financing costs were rising in trade finance. In Turkey, from 2008 September to 2009, export financing costs rose 40% (Acar, 2009: 21). Although guarantees and insurances were always important for exports, they become more important in crisis times. However, spreads increase in parallel with the riskier environment. In Turkey, surveyed firms noted that insurance costs increased 36.8% since September 2008 (ibid: 21). Although ECAs cover the risks and risks has settled down through the second-year of 2008 crisis, it is interesting that the insurance premiums were still high together with the increasing claims YoY was 60% (WTO, 2010: 17).

There should be an equilibrium in supply and demand of the financing in terms of 'reasonable' pricing. However, for some countries in a "sudden, severe, and synchronized"[5] crisis, there is no chance of such intersection. This brings "market failure" into question (Auboin & Engemann, 2013b: 9). It may both stem from inadequate supply from banks ("missing markets") or sky-high pricings in risky times which makes trade finance more vulnerable for market failure (Chauffour & Farole, 2009).

2.3 Shifting from Trust to Assurance

Even in a stabile economic environment, demand of L/Cs are four-time higher in countries which have a commercial default risk between A3 to C than A1[6] (Glady

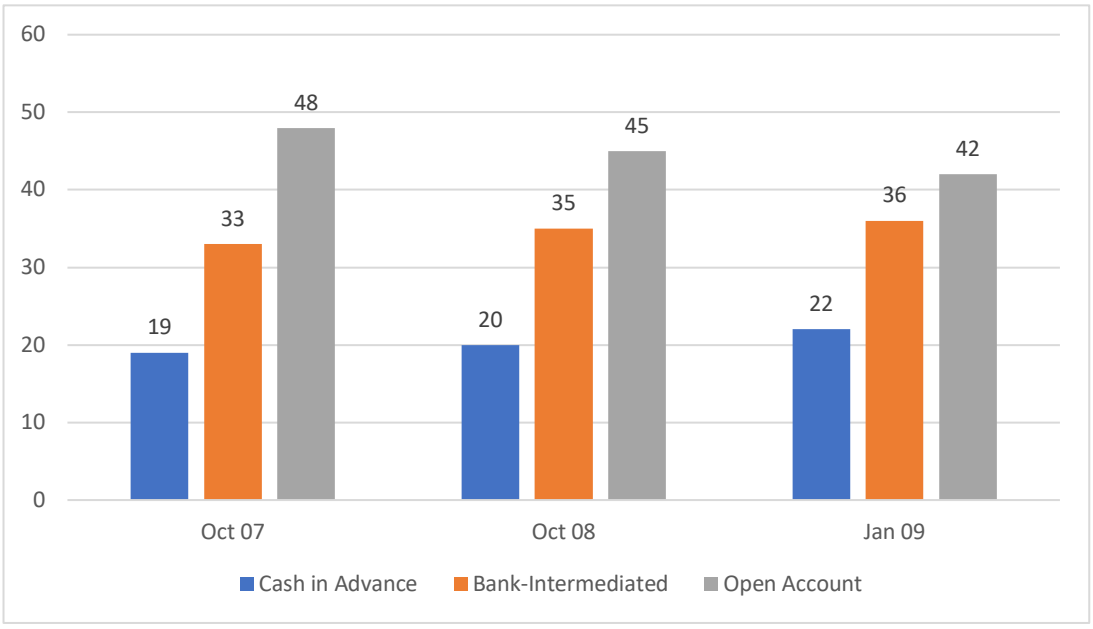
[4] Please see also (ICC Banking Commission, 2009).
[5] (Baldwin, 2009)
[6] The risk rating used in Glady & Potin's study is borrowed from COFACE's Business Climate rating in 2008. It varies from D as the worst through A1 as the best. Now, this rating is updated from E as the worst through A1 as the best.

&Potin, 2011: 41). Additionaly, exporters demand bank-intermediatad products more in countries with weak contract enforcement. So, crisis aggravetes this demand.

Although increasing cost of funds, and therefore increasing cost of trade finance products of banks, there was a shifting demand to bank-intermediated trade finance from interfirm starting from Q4 2008, since the parties both requested more protection in trade transactions via bank-intermediated products such as L/Cs (Asmundson et al. 2011). It is because of decreasing trust among market actors. Of course, the relationship between importers and exporters worsened (Brambila-Macias, Massa, & Salois, 2011: 5). Even the relations lasting for years between parties detoriated. Exporters have been asking for bank guarantees from importers (ITC, 2009: 50).

Figure 2.8 is the change of payment methods in global trade from pre-crisis to post-crisis period. Although it is suggested that crisis did not affect harshly interfirm credit relationship (Iacovone, Ferro, Pereira-López, & Zavacka, 2019), there were a visible decline in open account payments.

Figure 2.8 Payment Shift



Source: FImetrix for IMF and BAFT: 2009, IMF-BAFT Trade Finance Survey: A Survey among Banks Assessing the Current Trade Finance Environment. Washington, DC, p.10

Of course, this shift was not surprising since L/C is a more secure payment form rather than open account or other forms. ICC (2008) also propose that despite financial markets were tight to provide finance for trade, firms altered their financing types from open account to L/C because of the assurance of the L/Cs in 2008 crisis (ICC, 2008). Mora and Powers (2011) supports the same ideas about shift from open account to L/Cs based on data from SWIFT and others, as well as export credit insurance.

For 2008 crisis, apart from L/Cs, there was a demand for other instruments for safety. Demand of guarantees and trade credit insurance were rising (ITC, 2009: 50). Especially in EMs, request for ECA coverage increased (Berne Union, 2011).

Public and private insurance industry was also constrained by exceptioanl risks and exposures (Wang & Tadesse, 2005: 5). Auboin and Engemann (2013a) support this by illustrating that insurers are doubtflul about providing credit insurance in uncertain market conditions that risk increases. However, Table 2.5 shows that there was not a significant fall in short-term export insurance for nearly 2 years. In contrast, short-term export insurance had increased through the end of Q1 2009. Additionally Figure 2.9 shows that there was a 25% decline in exports while export insurances declined 13%. So, proportionally more insurance was supporting less trade.

Table 2. 5 Insured short-term export exposures as a share of trade

In Percent	Q2 2007	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008	Q1 2009
World	25	26	25	27	25	24	27	30
OECD	28	30	28	29	28	28	31	35
Non-OECD	19	20	20	21	20	19	22	23

Source: Korinek, J., Le Cocguic, J., & Sourdin, P.: 2010,The Availability and Cost of Short-Term Trade Finance and its Impact on Trade. OECD Trade Policy Papers No. 98. Paris: OECD Publishing, p.13

Nonetheless, there was a decline in insurers' limits from $1 trillion peak in Q2 2008 to 908, 769 and 743 in Q4 2008, Q4 2009 and Q2 2010 respectively, and the total claims paid by ECAs, especially in EMs, doubled (Morel, 2011). This limit fall could have been derived from private insurers instead of public backed ECAs, since G20 in April 2009 triggered public ECAs to mobilized against the crisis (G20, 2009).

Available data offers that private short-term insurance coverage felt 16% more than public one in addition to the rising prices (van der Veer K. J., 2011).

Figure 2. 9 Short-Term Exports Covered and Total World Exports



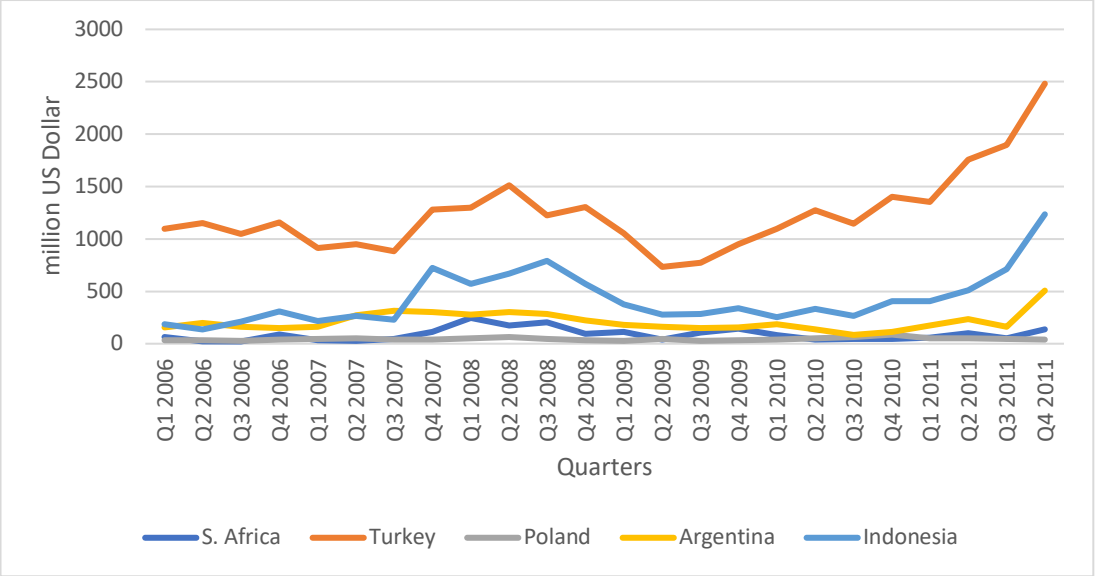
Source: (Berne Union, 2017)

In conclusion, export credit insurance was relatively resillient, according to the data and no default in sector, but obviously decreased in crisis period.

2.4 International Banks

Banks started their modern trade finance activities properly after WWII as a means of internationalization (Alverez & Flores Zendejas, 2014: 128). Before Asian Financial Crisis international banking network was expanding. Thus, trade finance has become more globalized and as a means of both North-South and South-South financialization. When the crisis hit, the shaken countries and their banks experienced the credit constraints by international banks due to insolvency risks. (Auboin & Engemann, 2013b). During the crisis of Asia and Latin America through the end of 1990s, international banks which operates in fragile countries decreased their exposures on domestic banks due to solvency problems but this affected imports and exports negatively and revealed the problem of available financing for trade at crisis times (Auboin, 2016: 5). It was seen again in 2008 crisis. Figure 2.10 shows the decreasing exposures of US Banks' for trade finance on several EMs.

Figure 2.10 Trade Finance Exposures of US Banks for Selected EMs



Note: All US Banks included

Source: FFIEC: 2019, The Federal Financial Institutions Examination Council Website https://www.ffiec.gov/E16.htm

Not only exposures decrease in the crises but also the number of active banks in trade finance. After several crisis periods around the world, in 2003, there were 10 to 20 international banks left that are active in trade finance, probably only 10 of them have notable business in the field (Auboin & Meier-Ewert, 2003: 7).

Local or Regional Banks have some difficulties and obstacles in trade finance market in EMs such as establishing international linkages, relationships and maintenance costs (i.e; SWIFT costs, event costs, travel costs); capital requirements; operational processes (i.e: documentary negotiation, legal consulting) (OVE, 2016b: 2). Because of these difficulties local banks can not seize every business opportunity and response them positively. International Banks fill this gap and dominate the market thanks to their wealth, workforce and capital adequacies. They provide between a quarter and a third of total bank-intermediated finance for trade (BIS, 2014: 11). It is a very high rate for total trade finance. Thus, when an International Bank cuts the credit line in order not to expose high risk in the head office, this is a crucial risk for domestic markets in crisis times (Humphrey, 2011: 151; Berman & Martin, 2012: 357). Even not all of them, just a few big banks cut the credit line, it means that a considerable amount of funds in trade finance market is withdrawn (IMF, 2003: 7; Brambila-

Macias, Massa, & Salois, 2011: 5). Sometimes country risk prevails commercial risk for international banks, e.g. political crisis of FYR Macedonia did not cause a financial crisis in 2000, however international banks cut the limits and before Soviet Union collapsed, international banks and credit lines first left the country (EBRD, 2003: 10).

International Banks provide Syndicated Loan to the EMs' banks along with credit. Syndicated Loan is a loan type that brings several financial institutions together, usually commercial and international banks, to lend needed loan in required currency type to the borrower institution to support including international trade transactions. After the 1997 Asian Crisis, while syndicated loan size decreased in EMs, pricings were doubled (IMF, 2003: 105). Syndicated loans to support international trade in EMs have decreased in 2008 financial crisis as well (ITC, 2009: 50). There was a fall between 40% and 90% in all EMs (EBRD, 2010a). In the APPENDIX IV, it can be seen that how international banks' syndication loans collapsed after 2008 financial crisis.

International Banks do not only cut the credit lines but also shut down the operations in EMs. Berman & Martin use the term "renationalize" for this (Berman & Martin, Financial Crises and African Trade, 2011: 170). Additionally, Auboin uses the term "repatriation of foreign assets" which causes trade finance deterioration (Auboin, 2009a: 2). In the light of these terms, we can entitle the return of capital and financing to the headquarter of international banks as 'renationalizing'. Renationalizing of both capital and operations causes a shock in the domestic markets. Whereas some countries were not affected from crisis severely, panic and precautions lead international banks to withdraw credits and close their operations in international markets (RBI, 2010).

When EM banks could not roll over or pay their debt, London Club[7] which is an informal debt restructuring and rescheduling forum got involved in restructuring and rescheduling of remaining debt. However, in opposite to the past, due to London

[7] London Club is shaped in 1976 by negotiating with Zaire, Peru, Turkey, Sudan and Poland. It. For the reason that it is an informal and less institutionalized forum, after the 90s crisis Paris Club undertook its place and attracted more attention. For further details, please see: https://www.researchgate.net/publication/301788861_The_Role_of_the_Paris_and_London_Clubs_Is_It_Under_Threat

Club has not granted privilege to the trade finance debt restructring in recent times, international banks moved away from EMs in case of an probable insolvency and deadlock (Auboin & Meier-Ewert, 2003: 7).

Although contingency is nearly inevitable in recent crises, strong financial markets can withstand international banks' cutbacks to an extent (Berman & Martin, 2012: 358). Tightening of financial markets is obvious in EMs due to their riskier statuses and they are more vulnerable to crisis.

International Banks not only have a business on their own but also in the name of MDBs' trade facilitation programs in crisis times. As it will be seen in Chapter 3, MDBs and International Banks cooperate in TFFPs.

2.4.1 Risk Aversion and Letter of Credit

In terms of the availability of credit, risky countries were deprived of credit through L/Cs (Berman & Martin, 2012: 358). Indonesia is a representative sample for lack of confirmed import L/Cs case. Declining exports in parallel with raw material imports due to lack of trade finance, exacerbated the trade volume of country (WTO Secretariat, 1998). This collapse would have been devastating and lasted for years unless there was a trustful touch. As a solution, Indonesia government and Central Bank ensured the foreign banks by guaranteeing the insolvency risks (Jacobs, 2005).

According to the Independent Evaluation Group's (IEG)[8] Report, there are a few endogenous and exogeneous reasons for international banks not to support EMs' local banks in trade finance for L/C confirmations such as:

- Issuing bank's or country's perceived high credit risk, both financially and non-financially, such as high FX liabilities for banks, weak banking industry, political or economic instability in country,

- Internal limitations, e.g. if the confirming bank reached the country's or issuing bank's exposure limit, or lack of sufficient information regarding issuing bank,

[8] For further details about IEG, please see: https://ieg.worldbankgroup.org/about-us

- Regulations that bring limitations directly or indirectly to trade finance, such as Basel framework (IEG, 2013: 21).

Furthermore, according to Humphrey there are impacts of crisis on L/Cs in terms of issuing bank such as:

- Issuing bank may not want to undertake the risk of crisis-hit importer,
- Issuing bank's capital and fund shortage that prevents it from providing credit (Humphrey, 2011: 151).

It is supported with the TEPAV's survey. For 2008 crisis, 70% of surveyed firms in Turkey stated that their partner banks have become more risk avert since 2008 Q4 (Kalkan, Dundar, & Dinccag, 2010: 3).

The basic logic behind L/C confirmation restraint may be counted as risk/reward perspective. On the other hand, to avoid from the risk of local banks and their L/Cs, international banks can:

- Request from issuing bank to deposit cash (FX) as a collateral,
- Share the risk in secondary market,
- Buy private insurance or get public ECA guarantee or coverage,
- Get an MDB guarantee or coverage (IEG, 2013: 22, 23).

According to Chui, Domanski, Kugler & Shek (2010), refusal of L/C confirmations is partly responsible from decreased syndication loans as a supply restraint. They also suggested that increasing risk reduced syndication loans by observing that 1% increase in CDS spreads caused nearly 13% decline in supply in next quarter (Ibid, p.45).

All these shows that in crisis times EMs are not only more fragile but also more vulnerable to the credit drying up (OVE, 2016b: 2).

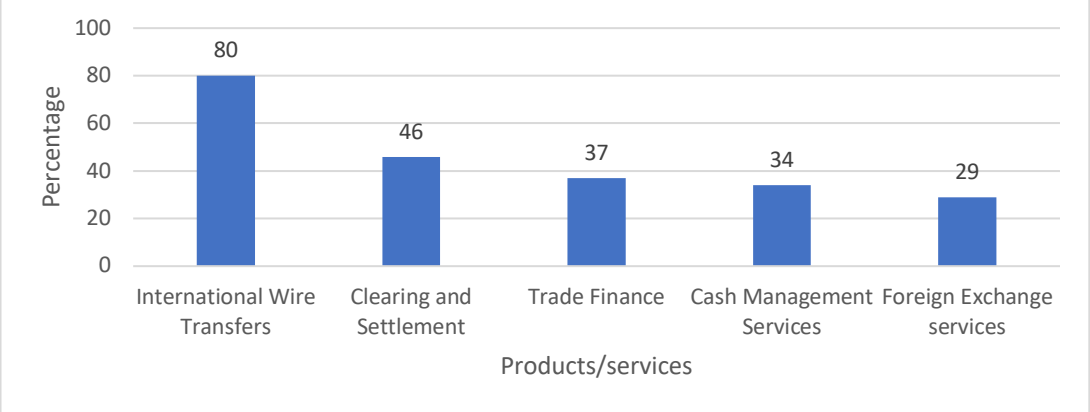
2.4.2 Correspondent Banking

Although in practical usage the term "correspondent bank" is sometimes used for the banks able to do business with connection (on SWIFT system), the term technically implies the banks have vostro and nostro accounts[9]. Correspondent banking is a reciprocal business relation of banks which enables the establishment of foreign currency accounts and to make payments for international trade along with providing trade finance services in different currencies (Finance and Markets Global Practice of the World Bank Group, 2015). Correspondent banking services are provided by mostly international banks on global scale.

Figures 2.11, 2.12 and 2.13 indicate the responses of survey that was conducted in 2015 by World Bank upon request of Financial Stability Board (FSB) about withdrawing correspondent banking relationship (CBR). Trade Finance appears as an important affected service in responses.

Among 20 international banks, 16 terminated the all CBRs and 17 downsized the CBR due to policy change regarding risks as 14 of them pointed this reason (Finance and Markets Global Practice of the World Bank Group, 2015).

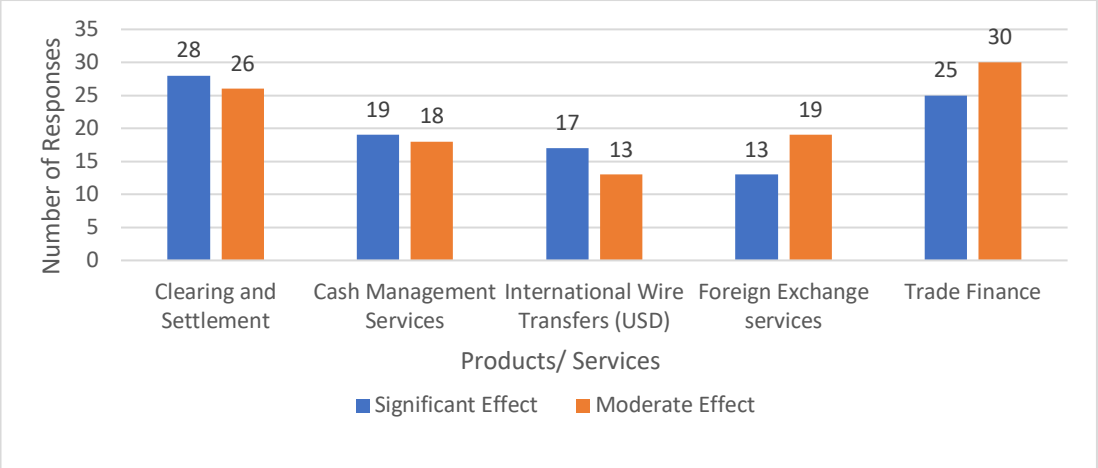
Figure 2.11 Affected products/services of Banking Authorities



Source: World Bank: 2015: Withdraw from correspondent banking : where, why, and what to do about it, Working Paper No: 101098 Washington, D.C. : World Bank Group, p.24

[9] For further details, please see: https://www.investopedia.com/ask/answers/051815/what-difference-between-nostro-and-vostro-account.asp online, visited on 24.08.2019

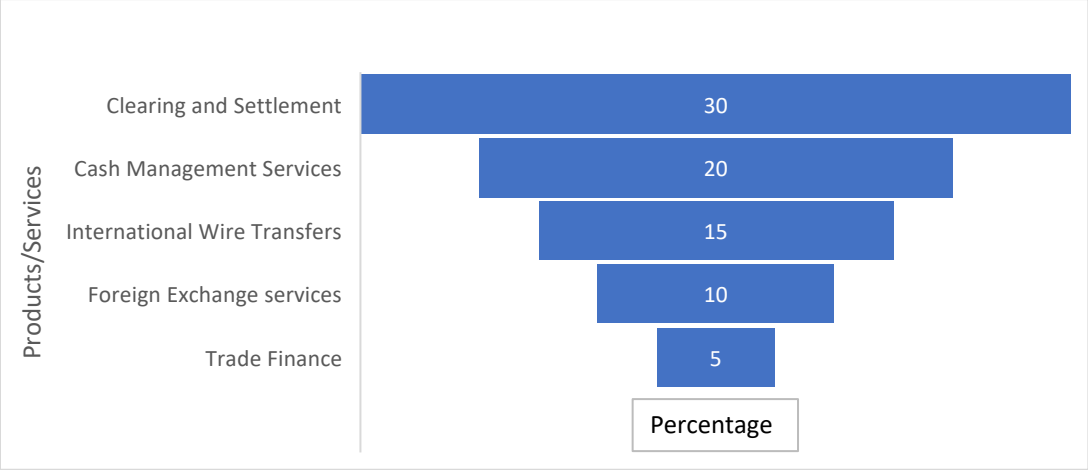
Figure 2.12 Affected products/services of Local/Regional Banks



Source: World Bank: 2015: Withdraw from correspondent banking : where, why, and what to do about it, Working Paper No: 101098 Washington, D.C. : World Bank Group, p.26

Since international banks does not depend upon other banks as much as local banks, CBR withdrawal does not affect them much in trade finance. However, due to the fact that they provide clearing and settlement, international transfer and FX services, CBR withdrawal has an important impact on local banks.

Figure 2.13 Affected products/services of Large International Banks



Source: World Bank: 2015: Withdraw from correspondent banking : where, why, and what to do about it, Working Paper No: 101098 Washington, D.C. : World Bank Group, p.25

2008 crisis caused retrenchment of correspondent banking linkages, riskier services and USD accounts (Erbenová, Liu, Kyriakos-Saad, López-Mejía, Gasha, Mathias, Almeida, 2016: 7). It was a limitation to access FX and markets. Breaking

the correspondent relations due to de-risking caused isolation from world for local banks and it occurs more severely in developing and emerging markets (Malaket, 2015: 7). In Turkey, according to the TEPAV's survey, 80% of surveyed banks stated that correspondent banks' restrictions are limited the trade finance business (Kalkan, Dundar, & Dinccag, 2010: 4). Even after 8 years from the 2008 crisis, CBR problem has remained intact, even ascended, which can damage the development in 'small' countries including EMs, as stated by Christine Lagarde (IMF Communications Department, 2016). Estimations showed that from 2011 to 2017, 19,3% of total 1 million CBR had been terminated (FSB, 2019).

2.5 Contagion and Herding

As the financial markets integrated with each other, each market has become more sensitive to shocks than before. International banks' withdrawal from market leads contingency of crisis. Although they bring great financial and development benefits to the country, international banks may be transmitter of the crisis (World Bank, 2018). Not only financial markets but also trade is integrated globally. Demand and supply decline simultaneously as the internationalization and globalization rise (Baldwin, 2009). In this context, Malouche's (2011) findings in 2010 survey are very interesting: While East and South Asia were the most negatively affected from 2008 crisis regarding their exports, most Latin America and Sub-Saharan Africa firms indicated that their exports were not distressed[10]. This may stem from Asia's massive reliance on bank-intermediated trade finance of while Latin America and Sub-Saharan Africa are not deeply integrated with international banks[11]. Additionally, according to the IFC, most of the Sub-Saharan African countries were in the least-affected category for 2008 crisis (IEG, 2011: 98). So, disconnectedness with global financial markets might have protected these countries from severe effects of crisis in terms of exports.

[10] Berman and Martin mention a contario for this proposal as although it is thought that Africa is not exposed to the crisis directly thanks to the continent's isolation from international markets, the crisis may have a strong impact on trade indirectly as Africa needs trade finance more than other regions (Berman & Martin, 2012: 330).
[11] Please see Figure 1.2 on p. 22.

Some firms in EMs such as Turkey, South Africa and Egypt stated that they are seeking to export in new markets rather than developed ones with 47% positive answer. This might imply that, developing and EMs which depends on EU and USA in trade wanted to reduce risk and limit the effects of crisis to a certain level by diversification of trade partners (Malouche, 2011: 177). All in all, as the integration of financial markets become stronger, it restrains to be protected from global crisis by country-level policies (Issing, 2000). Apart from financial triggering, herding is another problem for domino effect. EMs have a disadvantage in this manner, too. While herding in developed countries' financial markets are not significant, EMs suffers from this kind of fear (Bikhchandani & Sharma, 2001). Nobody doubted in United Kingdom's or Europe's Exchange Rate Mechanism crisis in 1992 and 1993 respectively, while whispers spread false news for EMs such as insolvency or seizure in Mexico in 1995 and South Korea in 1997 (Summers, 2000: 5). Therefore, international banks cut their credit lines to EMs (Auboin & Meier-Ewert, 2003: 6). Not only banks but also trade credit insurers rushes to retreat without rational information concerning the stakeholders and this may trigger the growing risk before a self-fulfilling prophecy is realized (IMF, 2003: 6).

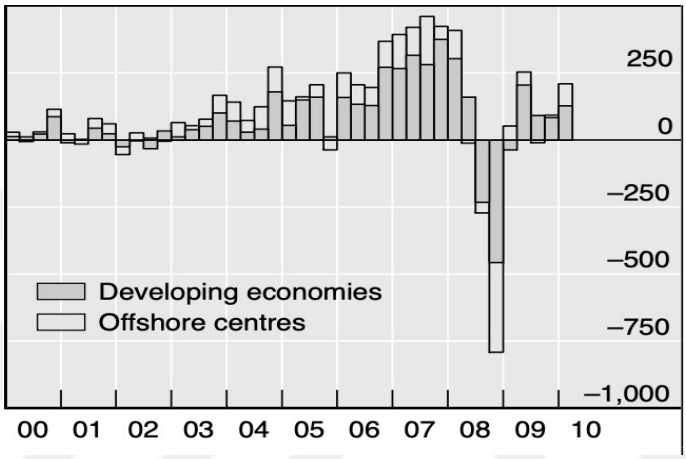
2.6 Foreign Exchange Reserves

Leading currencies in total trade finance calculation are USD as a global reserve currency with above 80%, EUR with around 10%, CNY with around 10% after overtaking the EUR in 2013, JPY and GBP with trace amount (Liu, Lu, & Woo, 2018). Domination in L/C currencies is in same alignment with different ratios: USD is again in first place with 83% in total, EUR is second with 8.8%, CNY is third with 2.7% and JPY is fourth with 0.8% (ICC, 2018).

In the 2008 crisis environment due to liquidity constraints, retreat of international banks from risky countries and CBR, US Dollar is exposed to renationalizing. There occurred foreign currency shortage in other countries, especially in EMs. Liquidity shortage restricted some banks to provide financing for trade (Kalkan, Dundar, & Dinccag, 2010: 4). Not only EMs but also strong economies had some troubles. European Banks already strained to obtain US Dollar against U.S.

Banks by reason of higher pricing of US Dollar in market (van Bommel, 2012). So that most banks suffered from lack of US Dollar liquidity. Thus, trade finance which depends on mostly US Dollar was in a bottleneck (BIS, 2014). In terms of FX reserves for trade finance, foreign bank claims and syndication loans are useful indicators. Figures 2.14, 2.15 and Table 2.6 shows the decreasing liquidity in the market.

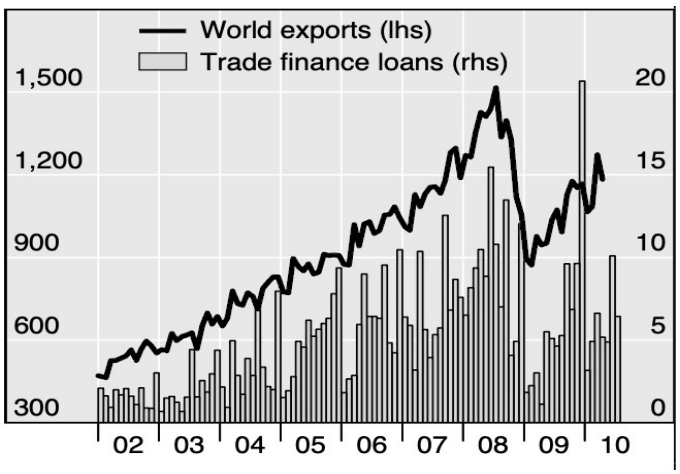
Figure 2.14 Yearly Foreign Claim Changes of BIS Reporting Banks' in EMs



Note: Billions of US Dollars

Source: BIS as cited in Chui M., Domanski D., Kugler P., Shek J.: 2010, The collapse of international bank finance during the crisis: evidence from syndicated loan markets, BIS Quarterly Review, Bank for International Settlements, September, p.40.

Figure 2.15 Yearly Total Syndication Loans as Trade Finance Loans



Note: Billions of US Dollars

Source: Federal Reserve Board; IMF, International Financial Statistics; Dealogic Loan Analytics as cited in Ibid, p.43.

Table 2. 6 Syndicated Loans Before and After 2008 Crisis in EMs

Country	Volume of cross-border lending (millions USD)		# of cross-border loans		# of cross-border loan portions		# of active banks	
	Pre-crisis	Post-Lehman	Pre-crisis	Post-Lehman	Pre-crisis	Post-Lehman	Pre-crisis	Post-Lehman
Argentina	3,587	382	16	4	79	13	11	10
Brazil	37,861	1,935	88	14	526	50	32	24
Chile	9,454	538	51	5	312	14	24	11
China	29,17	4,397	176	43	1,027	137	55	37
Egypt	3,834	742	19	6	143	32	21	20
Greece	18,284	958	72	4	319	15	29	12
India	31,166	2,265	195	22	1,635	53	68	26
Indonesia	5,042	4,280	52	21	270	65	32	26
Korea	20,209	4,708	134	27	817	111	51	30
Mexico	41,019	8,097	100	18	701	115	35	32
Peru	1,425	487	8	4	54	8	7	7
Philippines	3,004	1,343	21	7	157	40	22	19
Qatar	13,649	3,379	27	7	232	36	31	19
Russia	123,809	11,138	326	20	2,856	127	76	34
Saudi Arabia	22,997	0	27	0	270	0	32	0
South Africa	22,980	2,973	32	10	334	41	30	30
Taiwan	9,705	1,326	229	48	491	80	25	19
Thailand	6,512	277	47	5	236	20	28	15
Turkey	41,565	6,615	128	18	1,742	227	71	49
UAE	26,941	3,053	69	7	531	22	55	16

Note: "Pre-crisis refers to the period January 2005-July 2007 and post-Lehman to the period October 2008-October 2009. *Volume of cross-border lending* measures the total volume of cross-border syndicated lending to the country by the banks. *Number of cross-border loans* measures the number of cross-border loans to the country in which at least one of the banks in our sample was active. *Number of cross-border loan portions* measures the total number of individual loan portions provided by the banks in our sample to the country (e.g. one loan with 5 lenders of which 3 foreign lenders implies three loan portions). *Number of active banks* measures the number of different banks that were at least 3 times active as cross-border lenders in the country in the pre-crisis period."

Source: De Haas, Ralph and Van Horen, Neeltje, (2011), Running for the Exit: International Banks and Crisis Transmission, DNB Working Papers, Netherlands Central Bank, Research Department p. 41, 42.

Since several CBs involved in trade finance support to their domestic banks in the crises, Table 2.7 is useful to see FX reserves of CBs of EMs in the course of 2008 crisis. It is obvious that their access to FX became easier starting from 2010.

Table 2. 7 International Liquidity of CBs in EMs, Total Reserves excluding Gold

US$ billion	2006	2007	2008Q1	2008Q2	2008Q3	2008Q4	2009 Q1	2009 Q2	2009 Q3	2009 Q4	2010	2011	2012
Argentina	31	45	49	46	46	45	45	44	46	46	50	43	40
Brazil	85	179	194	200	206	193	189	200	221	237	287	350	370
Chile	19	17	18	20	24	23	23	23	26	25	28	42	42
China	1,066	1,528	1684	1811	1908	1949	1957	2135	2288	2416	2866	3203	3331
Colombia	15	21	22	23	24	23	23	23	25	25	28	31	36
India	171	267	300	303	278	247	242	255	271	265	275	271	271
Indonesia	41	55	57	57	55	50	53	55	60	64	93	107	109
Mexico	76	87	91	94	99	95	85	81	88	100	120	144	160
Philippines	20	30	33	33	33	33	34	35	38	39	55	67	83
Poland	46	63	74	79	71	59	58	64	75	76	89	93	103
Russia	296	467	499	555	543	413	368	396	395	417	444	454	487
South Africa	23	30	31	31	31	31	30	32	35	35	38	43	44
Thailand	65	85	107	103	100	109	114	118	129	135	168	167	173
Turkey	61	73	77	76	77	70	67	66	71	71	81	78	100
UAE	28	77	83	61	45	32	34	36	39	26	33	37	47

Note: [1] International Liquidity, Total Reserves excluding Gold, Foreign Exchange
Source: (IMF Statistics Department: 2010, International Financial Statistics. Washington, DC; IMF: 2019, International Liquidity selected indicators. IMF Data Website: https://data.imf.org/regular.aspx?key=61545856 visited 09.03.2019

It should be stated that based on the experience of US Dollar scarcity in the market, even ECB organized US Dollar auctions for its reserves in 2011-2012.

FX Reserves reduces by different causes in risky times. While lack of FX liquidity derives from return of capital to the 'home', trade finance shortage itself also may cause the lack of FX funds with a link to exports and sequence of events. As a circular problem, FX drying may exacerbate more FX drying, therefore a trade and trade finance problem. South Korea is a fitting example of it as an EM. On the eve of 1997 Asian crisis, in 1996, creditors did not roll over short-term loans and caused downgrade of the country's credit rating, withdrawal of foreign capital and lastly decrease of FX reserves in Bank of Korea by 47% (Akan, 2018: 87). In contrast with this experience, in the course of 2008 crisis, FX reserves were enough to protect South Korean banking system, and thus exports, thanks to the government which ensured

short-term loans with guarantees that are rolled over (Ibid: 100). Lack of trade finance may scupper the importing of raw materials for exporting goods and thus it hinders receiving FX payments born from exports (The Commonwealth Treasury of Australia, The Task Force, 1999: 49). In addition, banks may not provide available financing to the firms as a result of either their own or firms' Net Open Positions in foreign currencies (Auboin & Meier-Ewert, 2003: 8). Exchange rate shocks are also a problem for EMs (Ibid: 4). Importers may worry in such times for potential sudden increases since they cannot predict the currency rate when due date comes (Ibid: 8). Also, volatile exchange rates cause decreased FX reserves and increasing costs for goods, therefore insolvency risk.

Due to the global collapse in the market, starting from September 2007, and as a response to the 2008 crisis, FED gradually lowered its policy interest rate. ECB also joined the Quantitative Easing in October 2008 and this provided liquidity to the market (Kang & Ligthart, 2016). Trade and trade finance markets are also affected from this positively (Auboin, 2016: 7). As an interesting point, "taper tantrum"[12] of FED that was decreasing the US Dollar liquidity from market, did not affect the trade finance market in EMs importantly both in terms of availability and pricing although other EM assets were under stress (BIS, 2014: 20). It may indicate that albeit trade finance is affected from global economic and financial developments, to some extent it has its own unique dynamics which isolate it from rest of the financial markets (Mora & Powers, 2011: 124).

2.7 Privileged Companies

Auboin and Meier-Ewert (2003: 10) uses the term "Picking winners" that implies important players in import and export are again important and prominent to obtain guarantees and financing offered by MDBs or other financial institutions in crisis times. Prominent firms may have advantage in aid for Trade Finance relatively than other small firms when it is taken into consideration their profitability for and

[12] It is used for the gradual reducing of FED's purchase of Treasury Bonds. For further details, please see: https://www.investopedia.com/terms/t/taper-tantrum.asp

power on banks (Auboin, 2016: 7). Especially international banks may try to grap the large customers instead of SMEs (World Bank, 2018).

Prices were one of the other factors for size disadvantege. It is stated that smaller size firms continue to have difficulties to access trade finance one year after 2008 crisis due to L/C prices as high as 320 bps along with 300 bps insurance premiums (WTO, 2010: 17). In such times, banks benefit higher pricings with higher profit and as a sad truth, it is a "natural selection" for "creditworthy but are not as reputable as the well-established companies" (Auboin & Meier-Ewert, 2003: 6; Auboin, 2009b: 12). Over half of the bank-intermediated trade finance were utilized only by a few big companies in Africa (AfDB, 2017: 15).

Not only firms but also banks take advantage of their size. For instance, while smaller African banks retreat from trade finance, larger ones continue to provide financing because of their ability to handle the risk as being more selective (WTO, 2010: 17). In addition, large banks may have an advantage for MDB programs if their programs are too selective (Auboin & Meier-Ewert, 2003: 11).

2.8 Small and Medium Enterprises

SMEs are important component of trade and trade finance. They are "engine of growth" in Asia (ICC, 2018: 162) and "backbone of economy" over the world (ICC, 2015). EMs have plentiful number of SMEs. While trade finance is a matter for SMEs even in a stabile economy (WTO, 2016: 9), trade finance shortage in a crisis-hit market hit heavily SMEs. Global credit shortage is estimated between $2.1 and $2.5 billion for SMEs[13] in EMs (Stein, Goland, & Schiff, 2010). $150 billion of this shortage can be attirbutable to the trade finance (Mbuyu Capital, 2018). Additionally, SMEs in EMs mostly depend on domestic currency loans for international trade (ICC, 2014: 36). Although government incentives take place for SMEs and some IFIs provide trade facilitation programs and reducing the risk of SME suppliers in EMs and developing markets (Malaket, 2015: 8), larger sizes are on the front to obtain financing. When it comes to the bank product prices and access opportunity, generally SMEs are exposed

[13] The term is used as MSMEs in the report.

to hardships (ITC, 2009: 2). Along with located in an EM, being an SME is hard *per se* among larger companies. Since they are more external finance dependent but do not meet the requirements of larger banks, they face with difficulties in credit supply (van Bommel, 2012: 21). They are at the bottom of "pecking order" (ITC, 2009: 14).

Since SMEs are crucial for EMs, it is important to connect them to the global markets by expanding domestic banks' international linkages and to empower banking sector along with strengthening trade finance and value chain relationship (Brandi & Schmitz, 2015a: 1;4). Nevertheless, it is not an easy action and process for EM banks because of available information shortage about themselves and their countries, and their risks in the eyes of correspondent banks. At this critical point, MDBs and Regional Banks come into consideration as a guarantor.

2.9 Other Challenges

Including trade finance, banks' different business areas are subject to the Basel Accords. Basel Accords are related with trade finance especially in terms of capital requirements. Basel I maintained a comfortable set of requirements for banks but Basel II increased capital requirements for trade finance (ICC, 2009). With Basel II it became much harder to provide trade finance for developing and emerging countries, especially in a financial turmoil, since Basel II concerns counterparty risk instead of efficiency of trade finance products (ICC, 2010). After 2008 crisis, in 2010, Basel III was introduced by focusing more heavily on capital adequacy and liquidity by not granting privileges to trade finance although it has different mechanics from common financing such as cash loans. These implications affected emerging countries more than developed ones (Evenett & Vines, 2012: 201).

Particularly with Basel III regulations, BIS directly affected the trade finance intermediations of banks via on and off-balance sheet regulations and indirectly affected the international trade flows (Brandi, Schmitz, & Hambloch, 2014: 3). Capital requirements, hence, supply of trade finance through international banks, are influenced, particularly in EMs and developing countries (Brandi & Schmitz, 2015a:

2). Even though Basel III requirements were alleviated[14] by the complaints and demands of trade finance actors, Basel IV -extended amendments of Basel III- that also could have been affected the MDBs' funding conditions, is being questioned for concerns[15].

Apart from financial side, EMs have a disadvantage as lack of representation in international regulatory mechanism as well. Although WTO and the BIS with Basel Committee are the two of leading bodies of the trade finance environment, "cooperation between the WTO and the BIS is not adequately institutionalized, and key actors such as developing countries are not sufficiently involved in the decision-making process" (Brandi, Schmitz, & Hambloch, 2014: 1).

There is also a problem related to the international rating agencies for their ratings on EMs. According to international banks, low credit ratings of countries and local banks are very important obstacles for trade finance. (Beck, Shinozaki, Ferino, Zhang, & Mangampat, 2013: 4). EMs are more delicate to the credit rating moves (Auboin, 2009b: 4). A downgrade will shake EMs compared to the developed or less developed countries and an upgrade will help them to welcome more trade finance funds. Considering that EMs are already sensitive to credit ratings, they became much more fragile in tight market conditions. While rating agencies have not been successful to signal the crisis in 1997 and 2008, it is proposed that they inflamed the situation[16] (Ferri, Liu, & Stiglitz, 1999) by heavy downgrades immediately after the crisis and triggered herd behavior among international fund providers (Auboin & Meier-Ewert, 2003: 7). In addition, when it overlaps with the "negative bias" of Credit Rating Agencies, EMs becomes desperate. "Both western banks and developing countries have recently been complaining that ratings from international rating agencies maintain a bias against developing countries' risk." (Auboin, 2009a: 4). Turkey case in 2018 is one of the recent examples for this complaining[17].

[14] For further details, please see: https://www.bis.org/press/p140112a.htm
[15] For further details, please see: https://www.gtreview.com/magazine/volume-15issue-5/basel-iv-good-bad-news-trade-finance/
[16] https://www.cfr.org/backgrounder/credit-rating-controversy visited on 29.09.2019, 22.01
[17] https://www.aljazeera.com/news/2018/09/erdogan-bashes-rating-agencies-impostors-racketeers-180901062055718.html online, visited on 24.03.2019

Not only credit rating agencies but also balance sheet transperancy can lead a problem. Information shortages on or inappropriate balance sheets of companies, inadequate oversight for banks and information for CBs strenghten the herding (Auboin & Meier-Ewert, 2003: 7).

The 2008 crisis also featured the crucial job of MDBs including to provide finance for trade directly or guarantee via facilitation programs (Malaket, 2015: 8). Since EMs are more vulnerable to crisis and trade finance shortage, support programs are required for a healthy trade financing in these countries (Narain, 2015: 124). MDBs, and hence governments, get involved in this support process to provide and sustain financing for trade. However, sometimes not only international banks but also IFIs may enter into the process of de-risking (OVE, 2016b: 3). It is a disadvantage for EMs. Additionally, sometimes policies of governments and institutions have impact on MDBs to direct them to some extent[18]. Recent US funding to MDBs are also decreasing due to strategy changes and debates over commercial and political interests along with effectiveness of MDBs (Nelson, 2018).

[18] https://www.aa.com.tr/en/americas/us-bill-that-restricts-loans-to-turkey-clears-committee/1215188 online, visited on 24.03.2019

CHAPTER THREE
EMERGING MARKETS AND TRADE FINANCE SUPPORTS OF MULTILATERAL DEVELOPMENT BANKS IN CRISIS ENVIRONMENT

Constrained market conditions and internal restraints push banks to limit their trade finance activities during crises. So, where the private banks could not operate properly, MDBs took initiatives. Most MDBs behave in a countercyclical way in crisis times. Just like unlocking the door, MDBs act to help in troubled areas (ITC, 2009: 9). Asian Crisis was an unpleasant experience for MDBs. On the other hand, the crisis has transformed in a knowledge process for quick action in potential shocks, to be accepted in market and easier integration of beneficiary parties with familiar products.

> "All MDBs relied largely on preexisting instruments for their expansion in lending. ADB, IDB, and AfDB, like the World Bank, made efforts to revive special crisis lending instruments that were legacies from previous Crises." (IEG, 2011: 12).

One of the World Bank's projects can be mentioned for that experience since it has highly satisfactory rating by IEG (World Bank, 2008): After Asian and Russian Crises, Turkish exports were affected negatively (World Bank, 1999). Targeting to provide necessary financing for trade, World Bank's Export Finance Intermediation Loan (EFIL) which started in the end of 1990s and continued a series of four, is a successful program example for EMs. The program was implemented via Turk EXIM Bank which distributed the funds through commercial banks. In addition to the program's support for beneficiaries' achievement regarding 28% export and 21% sales growth, the program also enabled EXIM Bank to increase its institutional capacity (Demir, 2015). EFIL IV was introduced in the course of 2008 crisis and 3 years later an additional amount was injected to the project[1]. Such products and MDBs were noticed that they are lifebuoy in hard times. Thus, there was a consensus on keeping trade finance safe and available in crisis times, with the support of related parties including MDBs (Working Group on Trade, Debt and Finance, 2003: 6). It is

[1] For further details, please see: https://www.worldbank.org/en/news/press-release/2011/03/17/turkeys-exporters-to-benefit-from-additional-financing-from-the-world-bank

recommended that MDBs should provide third-party guarantees to continue trade finance availability in crisis times (The Commonwealth Treasury of Australia, The Task Force, 1999: 49; The Commonwealth Treasury of Australia, The Task Force, 1998: 97). Not only governmental and international institutions but also private sector think parallel with that. After 2008 crisis, in Turkey, according to a bank survey, bank managers thought that IFC and EBRD might enhance their guarantee programs to improve the international trade as well as ECAs (Acar, 2009: 16). Respectively, 5% and 10% of increase in trade finance support contribute firms to growth in business and hiring as 2% and 5% according to an ADB survey (Beck, Shinozaki, Ferino, Zhang, & Mangampat, 2013: 4). It can be thought that this kind of proposals were suggested when the iron is hot, shortly after the crisis. Nevertheless, in a calm environment, there was also an awareness and search for a stabile and sustainable financing channel due to denials of international banks on trade finance insturments in crisis times (Auboin, 2004: 23). Especially in EMs, trade finance can be an intermediary for growth in business and economy.

Based upon one of the arguments in the literature, proposing that declining trade finance has a 'weak' effect on declining trade would create a problem such that it causes to veil the countries which really need liquidity (Malouche, 2011: 178). Additionally, hence there is lack of exact data other than surveys, inaccurate data might have been caused redundant and ineffective use of financing sources and misdirected the MDB authorities to direct the sources to needless countries rather than destitute ones. MDBs prevented such a disadvantage for EMs which really need liquidity.

MDBs have mostly AAA credit rating, resulting from their sound shareholder and capital structures, being preferred creditor status with borrowers and thus their creditworthiness. They are eligible for 0% risk weighted capital under Basel III. Thanks to these, they can obtain the funds cheaper and easily, then provide funding to the market, and encourage the market with somewhat low interest rates (dos Santos & Kearney, 2018: 10). They provide liquidity and support to keep trade finance stabile relatively. Additionally, they can reassure counterparties with guarantees and coverages by risk undertaking. Most of MDBs raised their 'war-horse's that they are

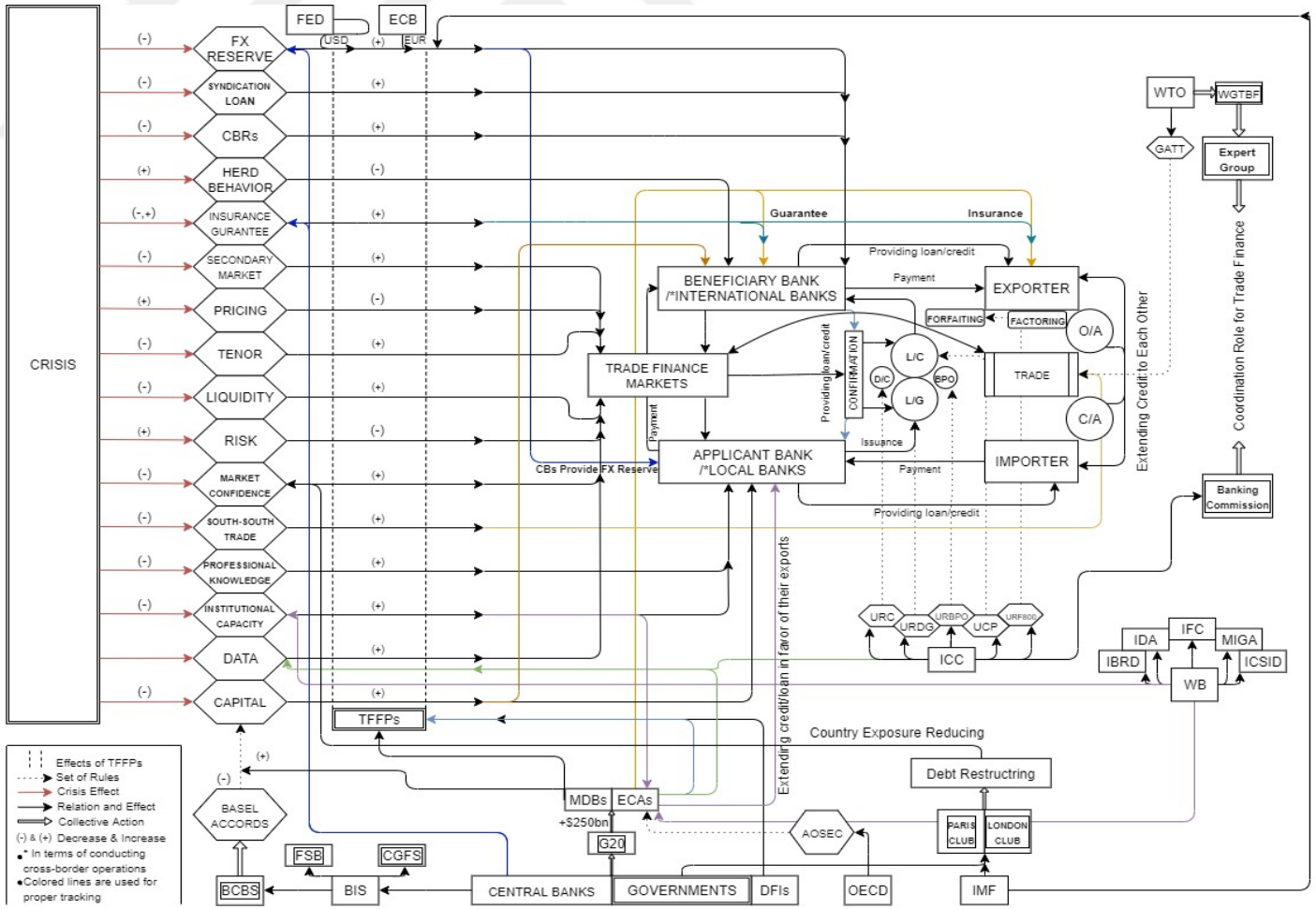
familiar with and know the workability, in the course of 2008 crisis. In ADB Survey, above 60% of the respondent banks stated that TFFPs of MDBs helped to bridge the gap between supply and demand substantially (Beck, Shinozaki, Ferino, Zhang, & Mangampat, 2013: 5).

Based upon the findings regarding the deteriorating effects of crises in previous section, it is clear that crises led to big problems in trade finance market, especially in EMs. By taking into consideration such support calls for MDBs like above, for the 2008 crisis, major response needs arose against crisis due to severity of market dysfunction. At that point, as the biggest action for trade finance ever since, G20 London Summit in April 2009 set a course to mobilize MDBs and take some measures for trade finance against the crisis. As a result of the $250 billion funding opportunity, MDBs intervened the market via TFFPs. In this section, the G20 London Summit and five large MDBs' TFFPs were introduced with developmental processes, their remedies for the market troubles explained and analyzed, systemic evaluation is presented. While the 2008 crisis is the focal point because of its actuality and impact, periods before 2008 was also examined and included to the analysis. Since nearly all TFFPs are based upon similar experiences and EBRD's support program as institutionalized, past practices were also utilized to instantiate where it is impossible to give specific examples. The analysis consists of actions against crisis, interactions and consequences of these. By this view, the results of the MDBs' supports for trade finance in crisis and post-crisis period will be clearly seen. Finally, in the 3.7 section, the holistic analysis will be presented in accordance with Figure 3.1.

In the figure 3.1, although the trade finance environment and TFFP effects are shown based on the 2008 crisis, it is not limited to this. Regular trade finance flows and connections between the banks, the importer and exporter, and the banks and customers are presented as well as brief operational directions, in the scheme to see the whole system in the market. Even this part on its own shows the usual trade finance functioning in the basic level. On the one hand effects of crisis on trade finance are specified with decrease and increase, on the other hand TFFPs' positive effects are shown. Not only TFFPs but also other additionalities from other actors are integrated.

Considering that MDBs did not responded to the crisis on their own, other actors took part in the scheme with both cooperative and individual relations. Thus, it will provide a broader perspective regarding the position of MDBs and TFFPs along with the relation network in trade finance ecosystem. This also unfolds the impacts of the promoter and regulator actors to the trade level. For instance, to see the Basel Accords' negative effects on capital requirement and thus negative effects on local bank and consequently negative effects on trade, or to see the positive effects of TFFPs of MDBs on the FX reserve and then issuance of L/Cs and confirmations and thus trade are great advantage to analyze the market. Even the rules regarding the trade finance products, such as UCP for L/C, are included since they affect the market somewhat in operational level. Additionally, it can be seen where the rule maker's position in the trade finance ecosystem. Not only trade finance ecosystem itself but also relation of trade with trade finance can be tracked properly in the Figure.

Figure 3. 1 Interaction Diagram of Trade Finance Actors, Institutions and Market based upon 2008 Crisis



Source: Author

3.1 The Group of Twenty London Summit

While the magnitude of crisis of 2008 was coming out gradually after a few months from October, authorities acted quickly for supporting trade finance against the crisis. "Panic stemming from a sharp and sudden decline in trade flows, memories of the Great Depression, and the role of trade finance in recent financial crisis, as well as a favorable political economy" might have been the causes of rapid movement of policy makers on trade finance (Hallaert, 2011: 252). Consequences of Great Depression were devastating, and policy makers did not want to be a current witness any of its versions. G20 London Summit was a rapid and first biggest collective action and declaration for the trade finance after 2008 crisis. According to the Auboin, although public-backed institutions took quick actions for the crisis, they felt behind the satisfying needs for supply of trade finance and thus, G20 endorsed the action plan (Auboin, 2009a: 1). G20 constituted Trade Finance Initiative before the summit for effective coordination and to benefit from the Asian crisis experience (Korinek, Le Cocguic, & Sourdin, 2010: 5).

In the London Summit in April 2009, G20 stated that they will provide US$250 billion to support trade finance for two years by the proposal of the WTO Expert Group and the funds will be distributed through Investment Agencies, ECAs, and MDBs which would provide an additional US$100 billion on their own. Furthermore, it was declared that IFC, by the thanks of Global Trade Liquidity Program (GTLP), will provide $50 billion to trade. For this unprecedented action plan IDB, AfDB and EBRD's capital would be reviewed[2]. On the other hand, G20 would ask to the regulators, the BCBS, for reduce the capital requirements for banks in trade finance business.

EMs were another focus point of G20. They were described as "engine of recent world growth" (G20, 2009). Therefore, most of US$250 billion support was directed to "grease" these "engines". In addition to the funding part, G20 indicated that

[2] For further details, please see: http://www.g20.utoronto.ca/2009/2009delivery.html

IFIs would be reformed in a wider perspective and involve more representation from EMs and developing countries.

Five months after London Summit, G20 met with a busy agenda again. In the Pittsburg Summit, it is stated that offered amount for trade finance was exceeded the initial amount and ECAs supported the market via insurance and working capital (WTO, 2010).

3.2 Asian Development Bank

ADB was ready to the 2008 crisis based upon their 1997 Asian Crisis experience and Trade Finance Program, which the program amount was raised $1 billion aftermath of the 2008 crisis from $150 million (IEG, 2011). In G20 London Summit it was accepted that ADB's capital would be increased by 200% to cope with crisis. The reason behind such a large increase might be that the Asia is the most dependent on bank-intermediation in trade finance among other regions. According to the ADB survey, in 2011, $4.6 billion global bank-intermediated trade finance demand's $1.6 was unmet while in developing economies of Asia these findings were almost $2.1 in demand and $425 million for unmet (Beck, Shinozaki, Ferino, Zhang, & Mangampat, 2013: 4). The unmet demand is more than a quarter of global shortage. In this context, ADB would need a huge capital to handle Emerging Asia's huge amounted and great number of transactions.

ADB concentrated Trade Finance Program (TFP) upon "more challenging markets" in 2008 crisis such as "Bangladesh, Nepal, Pakistan, Sri Lanka, and Vietnam" rather than "China, India, Malaysia, and Thailand" as EMs (Putz, Ben Ahmed, Beck, & Carrera, 2011: 331). It was not ADB's first time to concentrate on these countries in crisis time. In the course of Asian Crisis in 1997, ADB covered L/Cs issued from Pakistan Banks to International Banks aiming to import intermediate goods for exports of SMEs (IMF, 2003: 8), under Political Risk Guarantee Facility. The purpose was to ensure obtaining confirmation for and reduce the costs of L/Cs with $150 million limit, 100% payment guarantee, generally 1 year but maximum 3 years maturity (Office of Cofinancing Operations, 2005: 21). ADB also provided

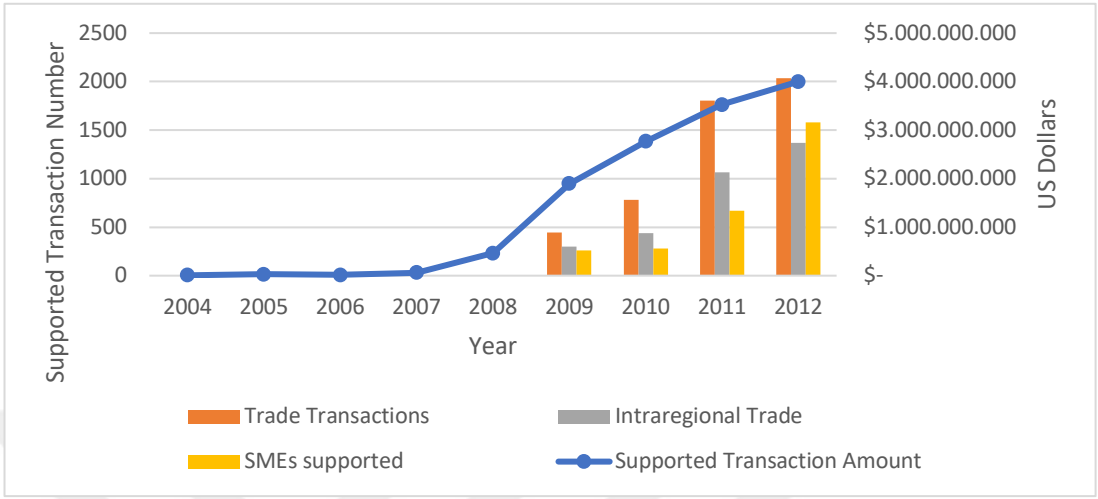
Thailand partial credit guarantee for $1 billion syndicated loan which is $50 million was directly funded from ADB and rest was cofinancing from 68 commercial lenders through Export-Import Bank of Thailand (ADB, 2000). With the cofinancing, international banks were included in the risk participation. It was a 'comeback' for international banks to EMs. By this participation,

- The market confidence was ensured thanks to the ADB guarantee,
- Local banks adapted due diligence process and regulations more carefully to obtain funding,
- For international banks, lack of information regarding the local banks were eliminated,
- CBRs were established.

Figure 3.2 shows the yearly increase in total transaction amount and number according to categories supported by ADB via TFP with guarantee, loans or pre-export financing with a rising trend. It is clear that especially after 2008 crisis liquidity was injected to the market by providing financing. At the same time, ADB's regular product was priced at 20 bps over the sovereign loan until July 2010, which was later increased to the 40 bps (IEG, 2012: 41). Relatively lower pricing together with increasing supply of funding, facilitated to revive the market. Figure 3.3 may suppport TFP's long efforts for reducing trade finance gap after effects of crisis alleviated. Needless to say, it may also stem from different dynamics such as decreasing trade or preferring non-bank-intermediated instruments. Although the remaining trade finance gap is "large and stable", it is a supportive fact for TFP's success that respondent banks expect increase in demand for trade finance for next two years in 2018 survey (Kijin, Beck, Tayag, & Latoja, 2019: 3).

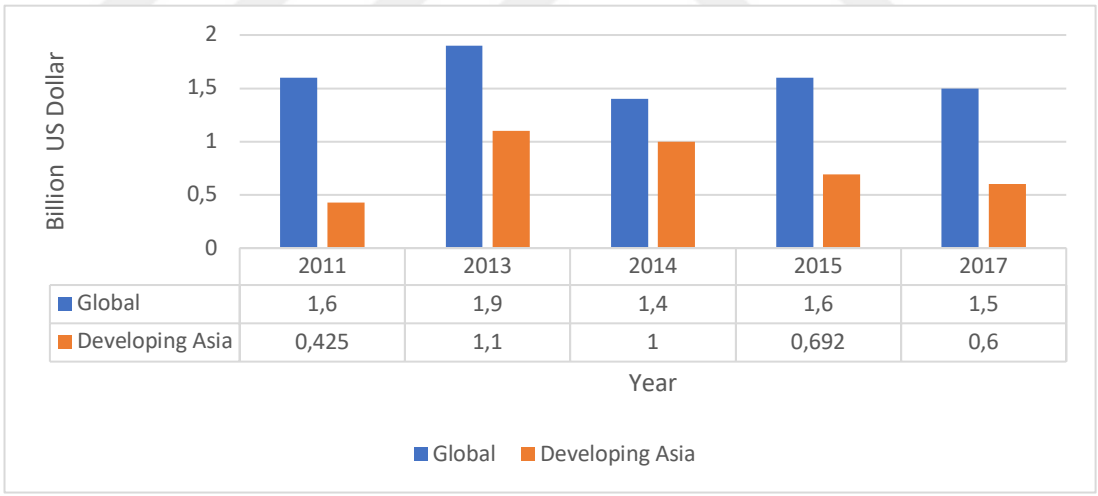
It is clear that there is a data shortage in trade finance ecosystem. ADB tries to fill this data gap by data reports in collaboration with ICC via ICC-ADB Trade Finance Default Register, along with its surveys. These data efforts would also help international banks to be informed about local markets and banks.

Figure 3. 2 Growth of Transactions Supported via TFP



Source: ADB: 2013, Trade Finance Program. 11th Senior Finance Officials' Meeting. Manado, Indonesia: Asia-Pacific Economic Cooperation

Figure 3. 3 Bank-Intermediated Trade Finance Gap According to the ADB



Note: Developing Asia includes India and China

Source: (DiCaprio, Beck, & Daquis, 2014), (DiCaprio, Beck, & Daquis, 2015), (DiCaprio A. , Beck, Yao, & Khan, 2016), (DiCaprio, Kim, & Beck, 2017), (Kijin, Beck, Tayag, & Latoja, 2019)

3.3 African Development Bank

Africa may be the most challenging region for trade finance among others. Lack of and costly importer and bank information, low profitability according to the

international banks cause import financing shortage, e.g. Asian banks' unfamiliarity with region resulted in refusal of L/C confirmations (Putz, Ben Ahmed, Beck, & Carrera, 2011: 324, 327). After 2008 crisis, Africa was dealing with common problems such as liqudity squeezing, higher costs, shorter tenors along with followings:

- international banks' inadequate support to Africa,
- Highest default rates of the continent in trade finance than other regions with 5% in total and 14% for SMEs (ICC, 2017: 205),
- Regulation conformity hurdles,
- Thus rejections for L/C confirmations,
- $340 billion bank-intermediated trade finance in continent against unmet demand is $120, $105 and $94, in 2011, 2012, 2013-14, respectively (AfDB, 2017b).

Because Africa has been suffering from being underdeveloped for decades, there was no chance for AfDB to explore trade finance problems in the region instead of fighting with poverty. Thus, unlike other MDBs, AfDB had not had a specific shock to discover a trade finance shortage and an experience for future actions. In this context, as a part of AfDB's crisis response program, Trade Finance Initiative (TFI) established in January 2009 with a $1 billion support. Half of this amount was partitioned for utilization from directly TFI and the other half was assigned to the GTLP in order to support trade finance in Africa with the IFC's network (Putz, Ben Ahmed, Beck, & Carrera, 2011: 326). It was expected from AfDB, so TFI, to provide trade finance for minimizing the effects of 2008 crisis (Fosu & Naudé, 2009). Based on the demand and success of TFI, AfDB established TFP in 2013. Between August 2013 and December 2015, nearly $3 billion cumulative trade was supported with +1000 transactions, 85 financial institutions and +20 African countries (AfDB, 2017a: 73).

TFP has three main instruments that can be funded as US Dollar, Euro, Rand and Yen: Risk Participation Agreement (RPA), Trade Finance Line of Credit (TFLOC)

and Soft Commodity Finance Facility (SCFF) which is related with agri-based business. Under RPA, AfDB usually bear half of the risk with maximum 3-year tenor, mark-to-market fees charged to the issuing banks (AfDB, 2013: 4). TFLOC is a trade loan extended to the mainly SMEs, which includes pre-shipment and post-shipment financing, factoring and import loans with maximum 3,5 years maturity with risk-based pricing (AfDB, 2015: 18). RPA and TFLOC have some requirements from issuing banks to obtain support from AfDB such as focus on SMEs, maintain their good standing during tenor, be in accordance with confirming banks, AfDB's due diligence process. They also stipulate confirming banks that conduct significant trade finance business in Africa and LICs.

Taking into consideration AfDB's intervention and requirements, both negative effects of crisis would have been ceased and a sustainable trade finance environment would have been created for a post-crisis period. Secondary market of trade finance revived, prices decreased, demand increased, although liquidity was volatile and tenors did not extend enough, constraints were reduced (Turner, Mokaddem, & Ben Ahmed, 2010: 10). By the thanks of risk sharing, those banks who have not risk appetite being attracted to conduct business in Africa. Market and risk based pricings, thus an acceptable profit for international banks along with local ones would also help this. It can be asserted that one of the AfDB's basic goal, to empower private sector in Africa was supported by this action. Including prominent international banks to TFP would lead a positive bandwagon effect among banks to participate in TFP or operate in 'risky' countries. SMEs funded systematically as long as they sustain good governance. Local banks had a chance to provide necessary information and data to conduct a relationship with international banks, even for further cooperations including CBR.

Table 3.1 shows the international, regional and local banks' involvement in AfDB's products.

Table 3. 1 Approved and signed projects of AfDB under TFP

Project (2015)	Country	Amount (USD million)			
		RPA[1]	TFLOC	SCFF	Equity
Standard Chartered Bank	Regional	300			
FirstRand Bank	Regional	100			
Sumitomo Mitsui Banking Corporation Europe	Regional	100			
Ecobank Transactional Inc	Regional	100	100		
Afreximbank	Regional	100	150		30
UT Bank	Ghana		20		
Shelter Afrique	Regional		20		
Unibank	Ghana		15		
FBN	Nigeria		300		
FSDH	Nigeria		50		
BCI	Mauritania		10		
ATI	Regional				
ATI	Zimbabwe				30
ETI	Regional		310		2
Banque de l'Habitat	Tunisia		67		
Standard Chartered Bank	Regional	200			
Meridian	Regional			20	
CBA	Kenya		40		
Banco Santander S.A. (Spain)		40			
TOTAL		**940**	**1.081**	**20**	**62**
Project (2013-2014)	Country	Amount (USD million)			
		RPA	TFLOC	SCFF	Equity
Citibank N.A.		50			
Standard Chartered Bank		200			
Bnp Paribas		40[2]			
UT Bank			20		
UBAF		50			
Afreximbank		100	150		
Ecobank Transactional Inc		100	10		
Commercial International Bank Egypt		50			
Commerzbank AG		100			
Shelter Afrique			20		
TOTAL		**690**	**200**		

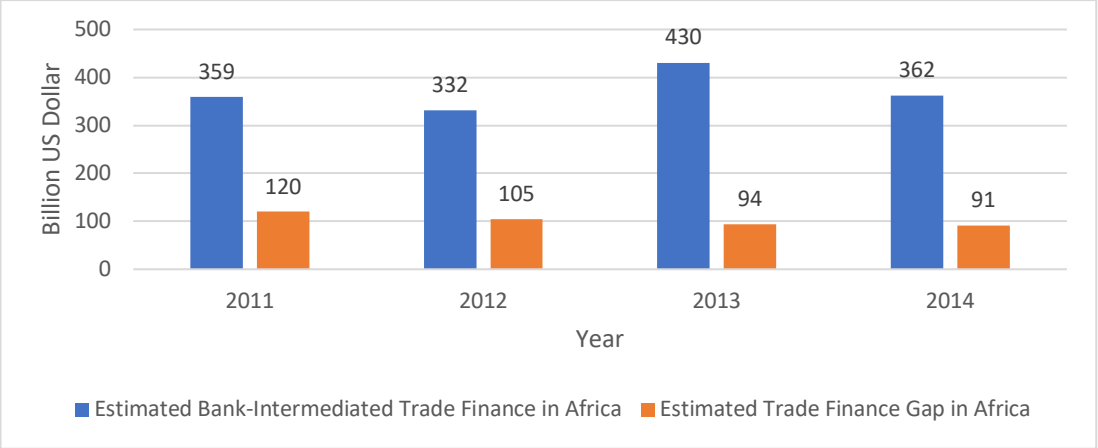
Note: [1]ABSA Bank has recently signed to participate in RPA[3], [2]EUR.

Sources: AfDB: 2017b, Fostering Development through Trade Finance. Côte d'Ivoire: African Development Bank; AfDB Website https://www.afdb.org/

[3] For further details, please see: https://www.afdb.org/en/news-and-events/press-releases/africa-investment-forum-2019-african-development-bank-signs-250-million-risk-participation-agreement-absa-address-africas-trade-financing-gap-32716

AfDB Surveys highlight that the trade finance gap is "significant" due to unmet demand in Figure 3.4 below. Due to larger trade finance gap and poverty reduction goals, and being in critical sectors, AfDB focused on LICs and SMEs as country and firm size category, that leads powerful positive impacts rather than other categories (AfDB, 2015).

Figure 3. 4 Trade Finance Landscape in Africa



Source: AfDB: 2017a p. 45, Trade Finance in Africa. Côte d'Ivoire: African Development Bank Group

3.4 Inter-American Development Bank

Just like ADB's Asian Crisis practice in 2008, IDB had experienced South American crisis in 2002. It led to the establishment Trade Finance Reactivation Program (TFRP) in 2003 with $1 billion limit that provides guarantee and loans (IDB, 2006). Initially the program was planned lasting for two years but in 2005 it was maintained. Being approved in 2004, as a part of TFRP, Trade Finance Facilitation Program (TFFP) launched in 2005. Table 3.2 shows the development process of TFFP.

In the beginning the program was structured for five years term and included 16 international banks as confirming banks by providing guarantee up to 90% and 3-year tenor (IDB, 2005). After a while, it was maintained too, and coverage was extended to 100%. Thanks to the TFFP, tenors lengthened. More importantly, the program and IDB enabled local banks to improve their relationship with international

banks and get confirmation for L/Cs aftermath of the 2002 crisis in region. A/B loans[4] are also injected liquidity to the market by direct funding.

Table 3. 2 Total commitments (Loans and guarantees) of TFFP

$ million	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	**Grand Total**
A											
Argentina						9,6	57,8	86,5	66,5	57,2	277,6
Brazil	18,9	52,5	98,6	109,1	98,2	100,1	293,4	284,3	467,3	211,9	1,734.1
Mexico								3,4	4,7	100	108
B											
Chile								7	230	60	297
Colombia						28,9	40	19,9			88,8
Peru			4,4		1,6		6,2	8	14		34,2
C											
Costa Rica				1		1,8	6,2	15,9	10,6	21,7	57,2
Jamaica				1,4							1,4
Panama				3	6,6	3,7	18,8	41,8	60,1	2	135,9
D											
Belize							1,8	1,5	0,4		3,7
Bolivia						3,4	12,1	13,5	23,4	19,4	71,8
Dom. Rep.						29,4	52,2	29,2	50	75,1	235,9
Ecuador		10	17,9	56,1	41,3	28,8	39,3			3,3	196,6
El Salvador								13,6	5,8		19,4
Guatemala				27,2	15,9	20,8	89,8	155,5	100,8	4	414,1
Honduras			10,8		4,9	9,1	11	45,5	92,7	48,2	222,3
Nicaragua		5,1	3	9,1	12,2	1,4	5,6	19,1	25,8	14,8	96,2
Paraguay				4,1	5	7,3	34,5	26,8	60,9	33,3	171,9
Grand Total	**18,9**	**67,6**	**134,7**	**211,1**	**185,6**	**244,2**	**668,7**	**771,6**	**1,212.9**	**650,9**	**4,166.2**

Source: OVE: 2016a, Evaluation of IDB Group's Work Through Financial Intermediaries Trade Finance. New York: Inter-American Development Bank, Annex I

In response to the 2008 crisis, IDB increased TFFP's exposure limit from $400 million to $1 billion, reduced issuing bank limit amounts and increased country limits more than double along with being 30 international banks in program. IDB made an effort to include all parties to the access of trade finane. Hence, a technical program for small sized banks and a training program for SMEs, which constitute 73% of IDB's total support, prepared. In 2010, thanks to the TFFP's network with 72 issuing banks

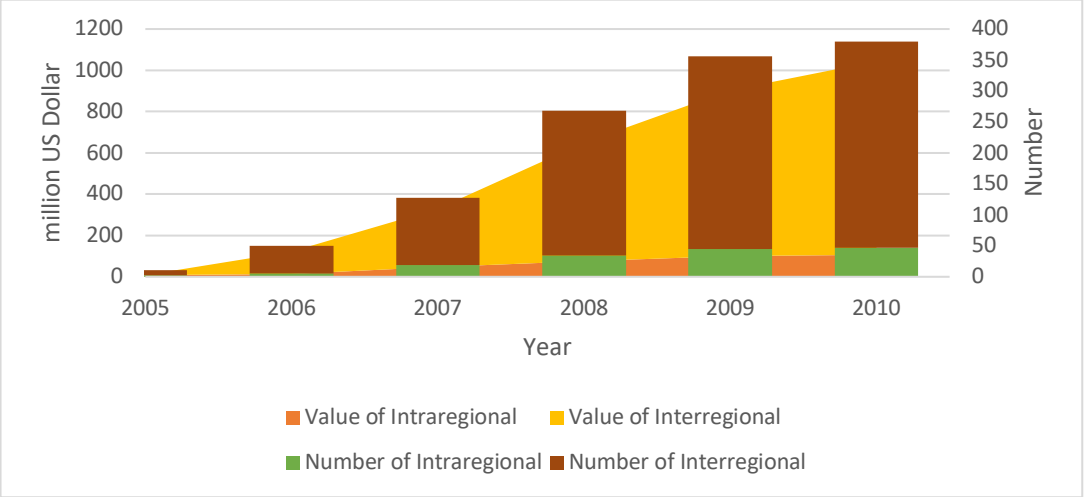
[4] For further details, please see: https://www.iadb.org/en/about-us/ab-loans-and-syndications

in 19 countries and 240 confirming banks in 53 countries, Brazil's BicBanco[5] enhanced its trade finance business from $176 million to above $1 billion since 2005 (IDB, 2011: 3, 4).

IDB also created Liquidity Program for Growth and Sustainability (LPGS) with $6 billion fund which focused on liquidity needs for second tier banks and SMEs in response to 2008 crisis to ensure the continuity of credit flows (OVE, 2016b: 11). The utilizing countries were LICs such as Costa Rica (25%), El Salvador (20%), Panamá (25%), Jamaica (15%), Dominican Rep. (15%) with total $285 million.

IDB's efforts resulted in to support SMEs, inject liquidity to and reduce the risk perception in market, inclusive action for international banks. Figure 3.5 shows that the strong impact of TFFP for exports and imports rather than domestic trade, and the value increasing.

Figure 3. 5 TFFP Transaction Values and Numbers



Source: Putz R., Ben Ahmed, G., Beck, S., & Carrera, D.: 2011, Regional Development Banks' Response to the Crisis: Scaling Up the Trade Finance Facilities. Ed. J.-P. Chauffour, & M. Malouche, Trade Finance during the Great Trade Collapse (s. 319-336). Washington, DC: The World Bank, p. 322, 335, 336

[5] Now, it is China Construction Bank Brasil. For further details, please see: https://www.ft.com/content/22c8e1b4-4112-11e3-8775-00144feabdc0

Although IDB did not focused on a specific country in Latin America and the Caribbean; Brazil with 24%, Chile with 12%, Argentina with 8% share as EMs benefited from the $2.2 billion approved amount under trade finance budget[6] (OVE, 2016b: 12). Brazil was also one of the first beneficiaries of TFRP with $110 million support[7].

Both the reason behind that such a small amount was disbursed in LPGS and decreased usage of TFFP after 2012 as can be seen in Table 3.2, in addition to shift from guarantees to the loans for 2013 and 2014, would stem from higher pricings when compared with market and liquidity abundance between 2012 and 2014 (OVE, 2016a: 15). IDB pricings were changing program to program. On average, for non-sovereign guarantees were mark-to-market while sovereign guaranteed products are subsidized banks and beneficiaries with LIBOR+0,80%. TFFP and LPGS spreads were around 2,6% and 4%, respectively (OVE, 2016b: 21).

3.5 European Bank for Reconstruction and Development

EBRD is pioneer in trade finance in terms of its trade finance program that was begun in 1999 to cope with the banking and liquidity crisis in Russia, being first among other MDB programs. TFFPs introduced by MDBs are mostly inspired by EBRD's Trade Facilitation Programme (TFP) (OVE, 2016a: 5). In fact, it is suggested to the EBRD by Project Evaluation Department that TFP and its responses against crisis should be promoted to the IFIs to enable them to replicate TFP because a structured crisis plan will be life saving for all other regions over the world (EBRD, 2003). Initially, TFP's focus was to assist and develop international trade to, from and within Central and Eastern Europe, and the Commonwealth of Independent States (CIS) via guarantees with up to 100% coverage (Bonds, P/Ns, Bills of exchange and especially L/Cs) and trade credits (short-term loans), before The Southern and Eastern Mediterranean (SEMED) region and factoring service is added to TFP (EBRD, 2019).

[6] It was 13% of the IDB's portfolio.
[7] For further details, please see: https://www.iadb.org/en/news/news-releases/2003-03-18/idb-approves-110-million-to-support-brazils-trade%2C1527.html

TFP started its supports in EBRD region with basic functions and incentives for trade finance by gradually offering developed products.

- TFP spearheaded to the L/C usage in CIS countries to fulfill foreign exporters' requirement for a proper relation with the region and to establish a healthier working capital structure between domestic importers and exporters,
- Built a great banking network offered,
- Offered 1 to 3 years maturities where the market can only propose 3 to 6 months in an unsettled environment (EBRD, 2003: 7).

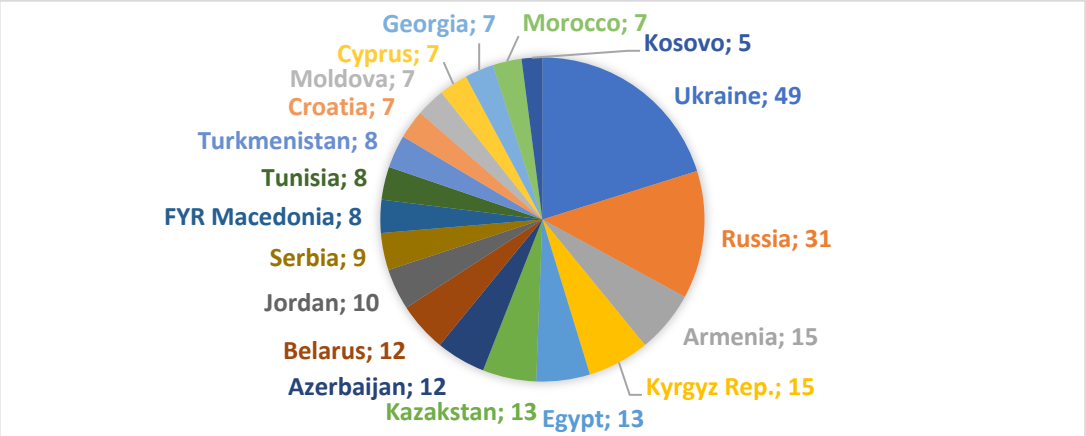
In 2008 crisis, EBRD took a proactive role (IEG, 2012: 19). They responded G20's declaration of increasing the availability of funds for the crisis. TFP's limit was nearly doubled from €800 million to €1.5 billion, but only €573 were utilized in 2009 when compared with past year's €890 and 2007's €777 (EBRD, 2009: 49, EBRD, 2007: 33). Also, trade finance guarantees were €429, €260, €369 million in 2008, 2009 and 2010 respectively. This poor demand for program would have been arisen from decreased trade in the period. Therefore they conducted a holistic approach for the crisis effects on trade and its finance. On the one hand they provided guarantee with L/Cs for risk coverage, on the other hand they provided liquidity to the market via short-term loans to the banks and factoring companies, accordingly to the importers and exporters. Moreover, in crisis period, exporter and importer banks developed a postfinancing scheme under L/Cs with EBRD guarantee such that after the obtaining guarantee for L/C, international banks extend a credit to the issuing bank under the L/C to provide loan (EBRD, 2010b: 3). Thus, basic problems of market, risk and liquidity and both side of transactions are facilitated in crisis period.

TFP led co-financing with ECAs, insurance companies and development agencies such as Netherlands Development Finance Company (FMO) or Organization of Petroleum Exporting Countries' Fund for International Development (OFID) for risk reducing in transactions in some countries, such as Ukraine, Russia or Georgia (Putz, Ben Ahmed, Beck, & Carrera, 2011: 322). As an unusual product, at the end of 2008, first factoring loan was provided to the Ukreximbank with a $10 million limit to

support SMEs by purchasing receivables, thus providing cash (Chauffour & Farole, 2009: 36). Furthermore, Ukreximbank got the first syndication loan over the world since the starting of the crisis, that led by EBRD with €93 million and international banks (EBRD, 2009: 45). EBRD's involvement in syndication loan would bring confidence to the market and lead international banks to participate. By this means syndication market was revived and international banks' risk perception reduced. Not only international currencies and sources but also SMEs and domestic trade was supported by EBRD via its first guarantee issued in local currency in August 2008 (EBRD, 2008). Later they constituted a program to support SMEs in local currencies with $500 million budget[8]. Taking into consideration that TFP's average value of transactions in 2013 was €0,6 million (ICC, 2014), 81% of SME transactions were under €1 million in the first half of the 2015, and there were 396 transactions below €1 million against 91 over €1 million in the latter, the numbers fits with EBRD's SME support strategy (Trade Exchange Autumn Winter, 2015)

In addition to liquidity support and capital strengthen, EBRD was trying to enhance institutional capacity of its clients (EBRD, 2009: 43). EBRD provided a learning program for its members as can be seen in Figure 3.6.

Figure 3. 6 Top Participants for the EBRD Trade Finance E-Learning Program by number



Source: (Trade Exchange Autumn Winter, 2016)

[8] For further details, please see: https://www.ebrd.com/what-we-do/sectors-and-topics/sme-local-currency-programmes.html

Both to obtain financing from external sources or to suffice itself with sustainable financing, EBRD's requirements and assistance for banks and firms are functional for economic development and growth. AML/KYC processes helped banks for a proper and transparent banking. All these achievements can be connected to main mission of EBRD which is that privatization in CIS countries for transition to the free market and merging them with global economy. It is supported with the idea that TFP see itself successful if issuing banks no longer need TFP support (ICC, 2014: 91).

3.6 International Finance Corporation

IFC differs from other MDBs due to its worldwide position. While others' primary support areas are their regions, IFC operates globally. This brings an additional responsibility to IFC. In the hard times for trade finance, IFC proved its success and showed that they are leading to support EMs and LICs in the purpose of growth and development by supporting trade finance, thus promoting trade. Starting from its involvement in trade finance, IFC support has reached approximately $170 billion, including $65 billion under flagship program GTFP, that rank them first place as trade finance provider among MDBs (Morton, 2019). IFC supported private sector in EMs mainly in terms of FX liquidity, capital and trade finance availability and this support may remain as long as general de-risking trend in banking sector against EM banks lasts (WTO, IFC, 2019: 27).

Even before structured trade finance programs, IFC provided support a wide range of countries. In 2000 IFC supported Pakistan trade with ABN-AMRO by risk sharing in half and that was the first risk taking business of IFC ever since Asian crisis (Mulder & Sheikh, 2005: 45). By this 'joint venture', political and commercial risks were shared. As a forefront international bank, ABN-AMRO was a global gate for local banks to facilitate trade. In 2002, financial turmoil of Brazil ceased by persuasive support of IFC[9] against international banks. IFC extended $50 million loan with 2 years tenor both for Banco Itau and Unibanco as well as $250 million syndication loan supported by international banks with 1-year term (Gomez, 2002). In a crisis country,

[9] For further details, please see: https://ifcext.ifc.org/IFCExt/Pressroom/IFCPressRoom.nsf/0/4286699C60C071B885256C5B00569EFD?OpenDocument

while even 1-year term is a longer one, extending the maturity to 2 years with immediate liquidity and assist to continuity of trade finance from international banks could only be possible via such a powerful institution. IFC facilitated 24 trade finance support before GTFP for 6 years with $652 million commitment, while 3 of them were 100% utilized and 11 were not disbursed (IEG, 2013: 12).

Just as other MDBs, IFC's support types and programs have varied over time regarding the needs of market and IFC's strategy. Especially 2008 crisis created several measures, initiatives and programs. IFC's strategic approach to the crisis was planned elaborately. Its initiatives were designed to cope with crisis as three stage:

- To supply immediate liquidity in the short run,
- To provide sustainable liquidity and equity capital for selected sectors and market categories in the medium and long term,
- To expedite the imrovement process as a result of first two points (IEG, 2011: 35).

Currently IFC's trade and commodity financing programs are Global Trade Supplier Finance (GTSF), Critical Commodities Finance Program (CCFP), Structured Trade and Commodity Finance (STCF), Global Warehouse Finance Program (GWFP), Working Capital Solutions (WCS) in addition to GTFP and GTLP, which are two main programs of IFC. GTSF[10] is designed for Supply Chain Financing, especially for SMEs in EMs by discounting receivables and providing finance directly or indirectly via banks. GWFP[11] created for Warehouse Financing, which is extending loan to the producers or exporter against warehouse receipts as a collateral. CCFP is designed for EMs and International Development Association (IDA) countries to provide financing both exports and imports of agricultural products and inputs, and energy imports to the poorest ones. Risk is shared with international banks, while EM banks and companies

[10] For further details, please see: https://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/financial+institutions/priorities/global+trade/gtsf2

[11] For further details, please see: https://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/financial+institutions/priorities/global+trade/gwfp

are supported via guarantees and liquidity. Under this program local currencies can be provided such as ¥3 billion injection for small firms in Asia by risk-sharing cooperation with Standard Chartered Bank, as first trade finance business for IFC in Renminbi (ICC, 2014: 79).

Balance sheets of EM banks deteriorated resulting from 2008 crisis. IFC also supported EM banks' capital structure, especially in Latin America with $2 Billion limit, both by equity investments and subordinated loans via $3 billion IFC Capitalization Fund[12] where at least $30 billion necessity (IEG, 2011: 35, 61). IFC's involvement in capital raising would attracted other MDBs or investors, e.g. Although Serbia's Komercijalna Banka was an important component of the banking industry, it was suffering from capital problems after the 2008 crisis. EBRD, Swedfund and German Development Bank took part in cementing the bank's capital (IEG, 2011: 36). In addition to the capitalization, IFC also took part in cleaning Non-Performing Loans (NPLs) from banks. Through Distressed Asset Recovery Program (DARP), IFC gave an opportunity to EM banks off-load around $30 billion NPLs with $7.3 billion commitment, while $2.7 billion directly from its own, and catalyzed secondary market (Cerruti, Cruikshank, Julià, Martínez, & Saché, 2019).

IFC's Export Credit Agency initiative also brought international banks to risky countries. EXIM Bank of India was provided $60 million limit by Bank of Tokyo Mitsubishi[13] and IFC to support small sized business (Marsh, 2009).

Pricings of IFC trade finance products increased during the crisis. However, while the market prices doubled or tripled in EMs, IFC fees rose only 50 bps (33%) in average (IEG, 2011: 109). Although this is an additional cost for the transaction, relatively low cost to obtain guarantee made easier to access trade finance for customers in EMs.

[12] For further details, please see: https://www.ifcamc.org/home and https://ifcext.ifc.org/IFCExt/Pressroom/IFCPressRoom.nsf/0/D3502228BFBCCD2485257C59005ABB5C

[13] In April 2018 its name was changed as MUFG Bank.

IFC also tries to enhance its clients' institutional capacity, via assistance, training programs and imperative compliance reviews (WTO, IFC, 2019: 23). Especially, AML/KYC processes or Wolfsberg Questionnaire direct local banks to follow global compliance policies to fight with money laundering or financial crimes that can be also taken place under a trade related transaction. According to the IEG, an unnamed international bank was spending $50.000 on due diligence process in a country which have low contract enforcement and high risk. Thanks to IFC's regular reviews, that international bank no longer needed such an expenditure. Along with compliance advisory, IFC also provide financial advisory for banks such as trade finance or NPL studies. By this way, they can satisfy the international banks and institutions regulatory requirements and access to the finance and financial networks.

3.6.1 Global Trade Finance Program

IFC started to run its trade finance program GTFP to support trade related deals in EMs in 2005. Although it was thought that IFC's GTFP funds were allocated equally without certain concentration (Wto Secreteriat, 2014: 2), its focus was mostly relatively small banks and transactions, thus SMEs in EMs (Galat & Ahn, 2011: 302). The budget was initially $500 Million and started to be utilized in 2006. Until the 2008 financial crisis, budget had been increased to $1 and $1,5 billion respectively before hit to the $3 billion as a counterattack to the crisis (IEG, 2013: 13). As parallel to doubled budget in GTFP from $1.5 billion to $3 billion for crisis period, utilizing volume was also nearly doubled between FY08 and FY10 without pressure on balance sheet since the GTFP required one-half capital for commitments compared with loans[14] (IEG, 2011: 39). In 2012, GTFP limit was raised to the $5 billion.

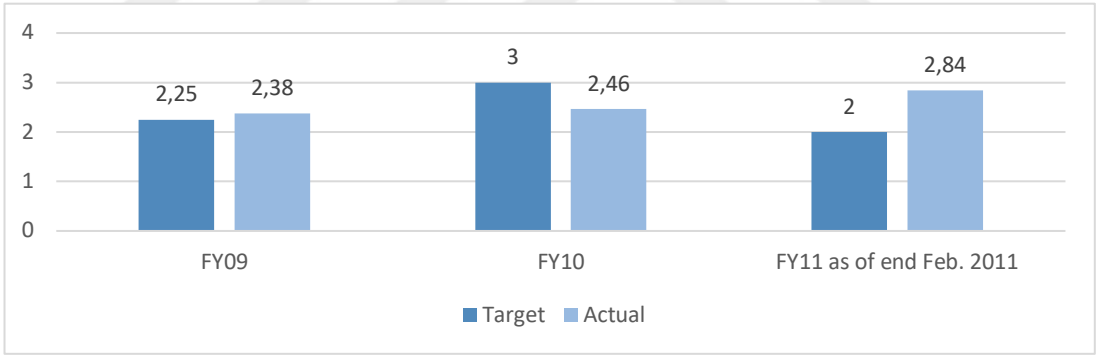
GTFP contributed to the trade finance as tailor made approach by coverage up to 100% for unfunded -bond and L/C confirmations, advance payment guarantees- and funded -from confirmation bank to issuing bank, pre-export, posth-shipment, post-

[14] "Trade finance transactions require a capital allocation of 11 percent of committed funds, as opposed to 22 percent for a loan. Also, the capital allocation is only necessary once the trade line has been used, not in the event it is not drawn down." (Independent Evaluation Group, 2011: 108).

import financing, also financing under P/Ns and Bills of Exchange and L/C discounting- products.

EMs attracted both domestic and foreign companies from both South and North after 2008 crisis (Alvarez, 2013: 3). Deriving from both this attraction and search for a trade partner diversification[15], 36% of supports under GTFP realized between EMs and South-South trade (Galat & Ahn, 2011: 304). South-South trade that is mostly conducted by Latin America and the Caribbean (LAC) and Middle East and North Africa (MENA), and supported by IFC's Global Trade Finance Program (GTFP) increased 113% in 2009 in comparison with last year (IEG, 2012: 81). Figure 3.7 shows the realization of GTFP targets regarding trade finance support. Except 2010, demand and supply of GTFP exceeded the target level for two years. Table 3.3 supports the growing demand and supply for GTFP.

Figure 3. 7 GTFP Target and Actual Commitments (US$ billions)



Source: IEG, 2012: The World Bank Group's Response to the Global Economic Crisis Phase 2. Washington DC: The World Bank Group. p. 83

IFC expanded its confirming and issuing bank network. This network expansion is a recovery for broken international and local bank relations. With this chance, bank relationships could have been reestablished as well as correspondent accounts. In 2010, GTFP was covering 183 EM banks in 82 countries with 84% SME guarantee issuance of total $3 billion guarantee (Malouche, 2011: 190). Asian demand for GTFP rose 175% in 2009 (Galat & Ahn, 2011: 306).

[15] Please see (Malouche, op.cit.: 177).

Table 3. 3 Growth of GTFP between FY08-FY10 (US$ billions)

Facts	FY 07	FY08	FY09	FY10
Program amount	0,5->1	1->1,5->3	3	3
#of Issuing banks (cumulative)	75	119	176	209
Utilization rate for issuing banks (%)		66	78	79
# of confirming banks (cumulative)	106	138	176	206
# of trades (per year)	564	1008	1869	2811
Volume	0.77	1.45	2.4	3.46
Claims paid	0	0	0	0

Source: IEG, 2012: The World Bank Group's Response to the Global Economic Crisis Phase 2. Washington DC: The World Bank Group. 81; Rozanski, M.: 2009, Global Trade Finance Program

IFC also cooperated with MDBs under GTFP. In Pakistan, Together with ADB, they provided €110 million guarantee for the equipment need in textile industry, the most significant sector of country with 60% in total (Galat & Ahn, 2011: 308). It would increase the effective use of resources and synergy between MDBs with sound coordination and risk sharing. Not only banks and MDBs but also trade credit insurers were involved in the business by IFC. IFC insured its $532 million GTFP transactions in EMs that brokered by Marsh and through nine large insurance companies (IFC, 2011). Thanks to this business, private insurance companies who reduced their limit in the crisis period, could grease their wheels.

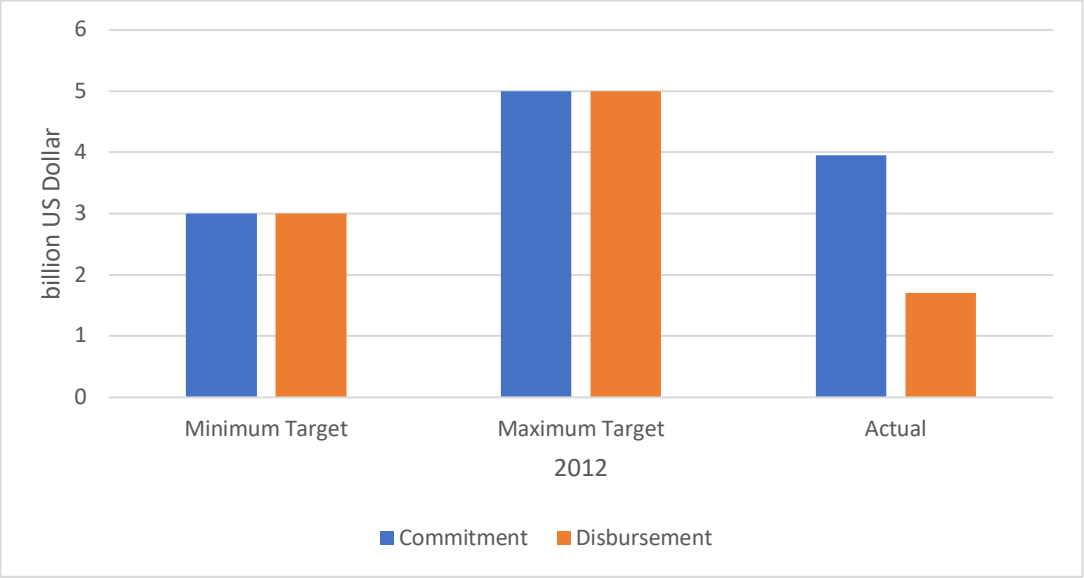
3.6.2 Global Trade Liquidity Program

GTLP was founded by IFC in 2009 with $50 billion targeting the EMs via funded and unfunded financing up to 270 days tenor and maximum 365 days for L/Cs, as a response to the crisis with its partners, such as U.K. Commonwealth Development Corporation, Department for International Development, the Japanese Bank for International Cooperation (JBIC), the Netherlands Ministry of Foreign Affairs, the African Development Bank, the Organization of Petroleum Exporting Countries' Fund for International Development (OFID), the Saudi Fund for Development, Canada's Department of Finance, the Swedish International Development Cooperation Agency (Sida), China's Ministry of Finance (through IFC bonds)[16] (IFC, 2010). The following

[16] (Galat & Ahn, 2011: 309)

banks are participated as Utilization Banks in the program: Standard Chartered Bank as the first facilitator of the program with $1.25 billion, Citibank, J.P. Morgan[17], Commerzbank, Rabobank, UniCredit, Wells Fargo, Sumitomo Mitsui Banking Corporation (SMBC), FIMBank, Banco Galicia, Banco Itau Paraguay, Intesa Sanpaolo, Standard Bank of South Africa and Africa Export Import Bank[18] against 520 banks in EM in 2012 (IEG, 2012: 305). Figure 3.8 shows the targets and disbursements under GTLP in 2012.

Figure 3. 8 GTLP Commitments and Disbursements



Source: IEG, 2012: The World Bank Group's Response to the Global Economic Crisis Phase 2. Washington DC: The World Bank Group. p.83

There are two ways of GTLP implication, which works as portfolio structure, in terms of liquidity procurement to the banks either risk sharing via purchasing 40% of available short-term trade receivables in trade finance portfolios of Utilization Banks or extending short-term loans to them (Galat & Ahn, 2011: 309). Purchasing from the trade finance portfolio made room for intermediating new transactions and derisking for both utilization and issuing banks. From the importers' or countries'

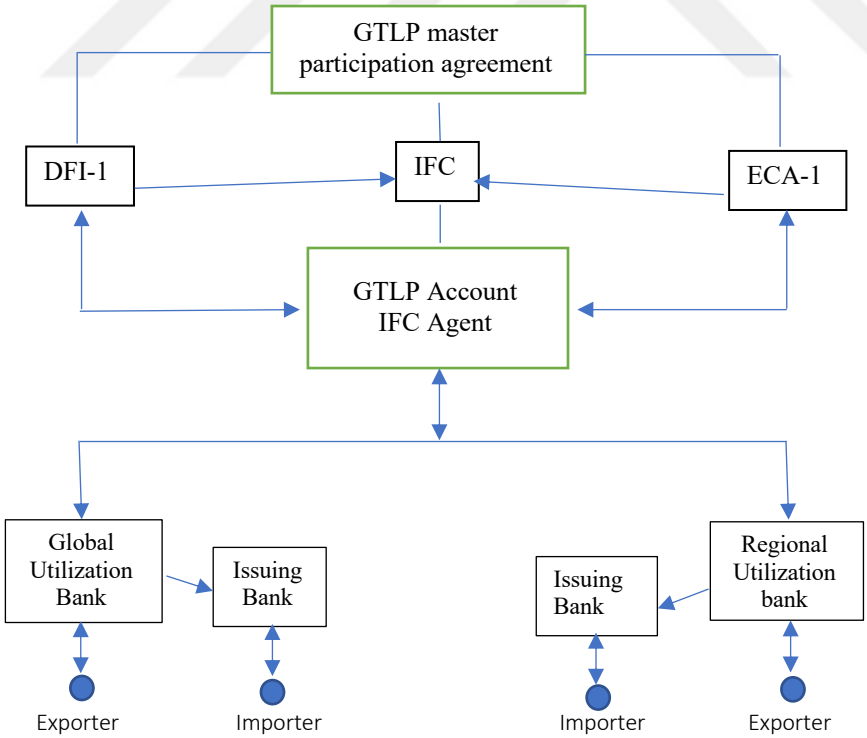
[17] For further details, please see: https://jpmorganchaseco.gcs-web.com/news-releases/news-release-details/jp-morgan-joins-global-trade-liquidity-program-world-bank-and/
[18] For further details, please see: https://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/financial+institutions/priorities/global+trade/gtlp online, visited on 28.07.2019

point of view, it means the continuity of trade via availability of financing. In addition to the individual issuing bank exposure limit, this structure made country limits available as long as purchasings are realized. Figure 3.9 demonstrates the working mechanism of GTLP.

A few prominent examples under GTLP are:

- Preexport finance for a Nigerian Cocoa exporter catering to US Dollar funding,
- Discounting export receivables of a Vietnamese food producer by Standard Chartered Bank with lower cost than the market,
- Extending credit for an import of Angolan company from Brazilian exporter by Banco Bradesco (Galat & Ahn, 2011: 317).

Figure 3. 9 GTLP Supply Demand Overview



Note: DFI Development Finance Institution, Issuing banks=Local banks, Global/regional bank= Confirming bank

Source: IFC: 2009, IFC Crisis Response Initiative: Targeted, Temporary and Timely. DDVE Seminar Presentation 2009-14. Washington, DC: The World Bank.

IFC was a coordinator and agent of the funds that were invested in GTLP by funders. This enabled funding institutions to reduce operational burden and feel more secure by dealing with one and powerful institution instead of multiple institutions. Furthermore, partners could prefer their funds and supports to direct certain regions or countries. By this means while they were involved a worldwide support program, they could reduce and share their 'regional' risks with another institutions.

3.7 Systemic Evaluation of Multilateral Development Banks' Role for Trade Finance in Times of Crisis

As it is explained in the first chapter, there are debates on cause and effect relationship regarding trade and trade finance decline in crises, especially after 2008. However, to say the least, it cannot be denied that trade finance has not an impact over trade. Thus, the crises affected negatively not only bank-intermediated trade finance but also non-bank intermediated trade finance in terms of mainly liquidity, risk and trust. Due to the fragility of EMs, they are more vulnerable to negative effects which paralyzed the trade finance market.

As a result of trade finance's multilateral structure both in terms of technical operations and relation among actors, MDBs were authorized by G20 as entities that can contact and cover the all parties internationally by using various instruments and products after the 2008 crisis. Five major MDBs targeted to cope with crisis effects both in their regions and other regions through their TFFPs and cooperation with other MDBs. However, TFFPs success in crises was a big question despite all their efforts.

In this sense, IMF's (2003) main points which were derived from experiences regarding past initiatives can be a check list for comparison of TFFPs in 2008 crisis:

- Design: TFFPs were 'quick' in action, convenient in 'pricing' and credits were utilized by 'relevant parties',

- Role of Main Actors: As a 'Key Player' MDBs took initiatives and touched the market, they incorporated the ECAs, DFIs, international and local banks and governments,

- Financing need for different episodes of exporting: 'Export Financing' supported via various products, including pre-shipment and post-shipment along with discounting the receivables and financing raw material

- Soundness of banking system: 'Strengthened the banks' in countries via capacity building helped local banks and country's banking authorities,

- Macroeconomic situation: Helped the 'Macroeconomic improvement and recovery' with right policies by reestablishing credit lines and trade.

According to analysis in this work, MDBs' behaviors matches with the right actions in 2008 crises. Thus, it can be said briefly that TFFPs were successful. Apart from a success in a general evaluation, TFFPs relieved the market with their efforts regarding the main problems and facts in the market:

- Under the non-bank intermediated trade finance, exporters demanded cash in advance or more safety products such as L/Cs, in crisis period to avoid non-payment risk. Increased liquidity and trust in the market changed the direction of wind through pre-crisis period. Thanks to the risks were recovered to a certain extent, there has been a trend shifting toward open account from bank-intermediated products (ICC, 2013: 30, ICC, 2014: 108). Although the shift was not as fast as expected, trust reestablished among parties.

- MDBs restored the international identity of financing/capital by providing market confidence and then diffusing it to the global scale. So, 'rush for exit' was no longer valid. During the crisis, even the L/C's basic function which ensure the counterparty regarding payment will be made by applicant bank disappeared due to insolvency risks of importers, local banks and countries.

- Maturities were lowered from 1 year to the 1 month.

- Pricings hit to the LIBOR+600 bps. L/C confirmation requests were rejected. At this point, MDBs guaranteed international banks that the payment will be made in case of a non-payment from applicant side, by undertaking the risk of EMs and

local banks. In 2010, L/C prices started to calm down from 150-250 bps to 70-150 bps in big EMs when compared with 2009 (WTO, 2010: 17).

- Not only prices but also excessive off-balance sheet exposures of international banks were a problem. Secondary market was also useful in this regard. However, as a result of inactive crisis-hit secondary market, exposures on balance sheets of banks remained at high levels that caused rejection of L/C confirmations. After the MDB interventions, secondary market has stirred up. Banks' risk sharing under IFC's GTLP is also a kind of secondary market purchasing.

- On the applicant bank side, local banks with deteriorated balance sheets also avoided from intermediating to transactions. Assistance is provided by MDBs to local banks for NPL reducing.

- Additionally, both for local and international banks trade finance actors including MDBs had an agreement with Basel Committee to lower the capital requirements for trade finance. Furthermore, MDBs got the zero-risk weighted capital for their trade finance supports. Thanks to MDBs, capital pressure on banks was alleviated.

- Participating in the syndication loans were also encouraged by MDBs by stepping forward and ensuring market confidence.

- Downgrades by credit rating agencies added burden to the risky environment. It affected tenors, prices and confirmations of L/Cs negatively. In the calming market, credit ratings normalized along with the declining risk perception.

- Through loans and financial derivatives, mostly US Dollar funding was increased. In parallel with that, Quantitative Easing of FED and ECB helped to increase liquidity in market.

- Decreasing L/C prices and refusals, increasing liquidity and demand for securitization facilitated imports and exports.

- Increasing exports via trade finance availability also contributed FX Reserves.

- Additionally, South-South Trade was supported.

- For the export side, MDBs included EXIM Banks to their TFFPs as a fund distributor in developing and emerging countries to support exporters. Thanks to these efforts, exporters accessed their financing needs. MDBs made business agreements with ECAs to insure their trade finance portfolios. By this means export insurance and guarantee sector, especially for private players, revived.

- In addition to the financial side, because of lack of qualified team in both banks and companies for trade finance (Auboin, 2009b), trainings and know-how cooperation would be very useful. MDBs provided assistance in this field as well.

- Gathering accurate data became available thanks to MDBs. Amiti and Weinstein mentions that proxies rather than accurate data cause measurement problems (Amiti & Weinstein, 2011). Additionally, "Two of the major difficulties regarding policymaking in the area of trade finance are the lack of reliable quantitative information and the limited evidence on the relationship between international trade and trade finance." (Contessi & de Nicola, 2012). Thus, the data gap has started to fill with MDB surveys and transaction data. This data accumulation can contribute macroeconomic observations along with being an 'Early Warning System' (van Wersch, 2019)[19].

- Nonetheless, CBRs could not be reestablished in high levels in comparison with pre-crisis period. There are still complaints regarding CBRs.

To sum up, as fully structured and experienced programs, TFFPs took part in market together with other actors by cooperation rather than acting on their own. It was for several reasons, e.g. They would not be effective on their own, and they wanted to strengthen private sector as main strategy. Therefore, MDBs cooperated with other actors in trade finance. Otherwise, TFPPs' effect would be limited.

[19] For digitalization and data issue, please see Cornelia Lotte van Wersch, 2019. "*Statistical Coverage of Trade Finance - Fintechs and Supply Chain Financing*," **IMF Working Papers 19/165**, International Monetary Fund.

3.8 The Future of Multilateral Development Banks' Role in Trade Finance out of Crises

As of mid-2010, trade finance levels had stabilized but were unlikely to return quickly to the high-volume levels that preceded the financial crises (Putz, Ben Ahmed, Beck, & Carrera, 2011: 321). MDBs did not gave up trade finance support after the constraints solved. Furthermore, they are recommended to enhance TFFPs since they can improve the status of SMEs which are the engine of EM economies (WTO, 2016). To date, TFFPs provided US$100 billion to the trade with around 80.000 transactions (Beck & DiCaprio, Finance That Matters: International Finance Institutions and Trade, 2020: 212). According to ICC (2018) calculation, it is US$168 billion with around 100.000 transaction over the last decade.

> "Public institutions proved to be critical intermediaries through which governments implemented their interventions during the crisis. They will continue to play key roles in the future, too. Being part of the multilateral development banks' trade finance programs is an important element in preparing for crisis, for banks in both emerging markets and the developed world. If crisis strikes, for whatever reason—be it national, regional, or global in scope—the multilateral trade finance programs and ECA initiatives can provide ways in which institutions can continue to offer loans and guarantees to keep the wheels of trade running smoothly." (Putz, Ben Ahmed, Beck, & Carrera, 2011: 333).

Rightfully, the duration of MDB intervention is questioned whether it lasts over the course of crisis or longer term. It is suggested to end interventions when the market failure ends (Auboin & Meier-Ewert, 2003: 11). Even accepting that it should be limited for the crisis time interval, there are long standing individual country crises, e.g. Greece debt crisis[20], regional crises and or conflicts between countries. Thanks to the MDBs that mitigate commercial and political risks, importers, exporters and banks can operate in such countries. Apparently, permanent trade facilitation programs are needed on global scale. Long-term measures should be taken after the crisis since the

[20] For further details, please see: https://www.imf.org/en/News/Articles/2019/10/01/sp093019-The-IMF-and-the-Greek-Crisis-Myths-and-Realities

frequent short-term supports without pointing and solving main reasons of crises will be useless. MDB interventions were also questioned regarding the effects of programs over trade or 'preferred bank' problems by MDBs for coverages (Auboin & Meier-Ewert, 2003: 10). It should be monitored, even it should be pushed by Governments or IFIs to firms to produce long-term values thanks to these funds. Since long-term investment implementations and sustainable growth through these triggering funds' are possible, trade finance as a short-term financing is very crucial for global economic activity. As a good example, IEG seek to research such effectiveness for WB group.

CONCLUSION and SUGGESTIONS

Trade finance has not attracted enough attention in academia. Thus, there is a need for further studies regarding the relationship between trade decline and trade finance. However, trade finance actors mobilized in 2008 crisis to increase financing supply regardless of whether the trade decline is caused by a supply or demand fall. Although trade decline after the 2008 crisis and trade finance shortage relationship is not cyrstal clear yet, it can be admitted that lack of trade finance has, at least, a moderate effect on trade fall. Indeed, independently from trade, trade finance itself was affected from the financial crisis in 2008 with regards to liquidity drying and high risk. It was thought that decreased trade volumes will not recover without consistent finance flows just like as pre-crisis period.

EMs were the most affected ones from the trade finance constraints. Due to their fragility, they faced more difficulties than developed countries. Especially withdrawal of international banks from EMs was devastating. At this point, by the encouragement of policy makers, MDBs took a lot of individual and cooperative action for trade finance. Thanks to MDB interventions, the market started to be normalized: Liquidity increased, risk decreased, longer tenors and lower pricings could be founded in market.

In the light of above findings, this study tried to demonstrate how the trade finance market functioned in 2008 crisis and after MDB interventions via TFPPs. It was suggested that TFPPs ceased the market tensions together with other initiatives and succeeded their missions in crisis period, especially in EMs. The Figure 3.1 comprehensively presents these.

For further studies, trade finance has generous conveniences along with its esotericity and importancy (Malaket, 2015: 14). Holistic approaches together with econometric methods will be more effective to bring out new meaningful linkages and findings.

REFERENCES

Acar, O.: 2009 — Evaluations for Trade and Trade Finance in Turkey. **Economy Policy Research Foundation of Turkey** (TEPAV).

ADB: 2000 — **Project Completion Report on the Export Financing Facility in Thailand**. Manila: Asian Development Bank.

ADB: 2013 — Trade Finance Program. **11th Senior Finance Officials' Meeting**. Manado, Indonesia: Asia-Pacific Economic Cooperation.

AfDB: 2009 — **The African Development Bank Group Response to the Economic Impact of the Financial Crisis.** Abidjan, Côte d'Ivoire: African Development Bank Group.

AfDB: 2013 — **Fostering Development through Trade Finance**. Côte d'Ivoire: African Development Bank.

AfDB: 2015 — **Fostering Development through Trade Finance**. Côte d'Ivoire: African Development Bank.

AfDB: 2017a — Trade Finance in Africa. Côte d'Ivoire: **African Development Bank Group**.

AfDB: 2017b — Fostering Development through Trade Finance. Côte d'Ivoire: **African Development Bank**.

AfDB: 2019 — News & Events. **African Development Bank Group Website**: https://www.afdb.org/

Ahn, J.: 2011 — A Theory of Domestic and International Trade Finance. 11(262). IMF **Working Papers**, International Monetary Fund.

Akan, T.: 2018 — The Complementary Roots of Growth And Development. Cham: P**algrave Pivot**.

Allen, W. A., & Moessner, R.: 2010 — Central bank co-operation and international liquidity in the financial crisis of 2008-9. BIS **Working Papers** No 310. Basel, Switzerland: Bank for International Settlements.

Alvarez, A. M.: 2013 — Trade Finance Opportunities through South-South Cooperation. Maastricht: **European Centre for Development Policy Management** (ECDPM). www.ecdpm.org/dp152

Alverez, S., & Flores Zendejas, J.: 2014 — Trade finance and Latin America's lost decade: The forgotten link. **Investigaciones de Historia Económica - Economic History Research**, s. 127-

139. http://archive-ouverte.unige.ch/unige:92295

Amiti, M., & Weinstein, D. E.: 2011 — Exports and Financial Shocks. **The Quarterly Journal of Economics**, 126(4), s. 1841-1877. doi:10.3386/w15556

Antras, P., & Foley, C. F.: 2015 — Poultry in Motion: A Study of International Trade Finance Practices. **Journal of Political Economics**, 853-901.

Asmundson, I., Dorsey, T., Khachatryan, A., Niculcea, I., & Saito, M.: 2011 — 2008–09 Financial Crisis: Evidence from IMF and BAFT–IFSA Surveys of Banks. J.-P. Chauffour, & M. Malouche içinde, Trade Finance during the Great Trade Collapse (s. 89-116). Washington DC: **The World Bank**.

Azis Iwan J., Yarcia D.: 2014 — Economy-wide vulnerability in Asia: flow-of-fund analysis. Azis Iwan J., & Hyun S. Shin içinde, Global Shock, Risks, and Asian Financial Reform (s. 150-194) **Edward Elgar Publishing**, number 15939, April.

Auboin, M.: 2004 — The Trade, Debt and Finance Nexus: at the Cross-roads of Micro- and Macroeconomics. WTO **Discussion Paper** 6. Geneva, Switzerland: World Trade Organization (WTO).

Auboin, M.: 2009a. Boosting the availability of trade finance in the current crisis: Background analysis for a substantial G20 package. (35). London: **Center for Economic Policy Research**, Policy Insight.

Auboin, M.: 2009b Restoring Trade Finance During a Period of Financial Crisis: Stock-Taking of Recent Initiatives. WTO **Staff Working Paper** ERSD-2009-16. Geneva, Switzerland: World Trade Organization.

Auboin, M.: 2011 World Trade Organization Response to the Crisis: A Convening Power to Boost the Availability of Trade Finance. J.-P. Chauffour, & M. Malouche içinde, Trade Finance during the Great Trade Collapse (s. 289-299). Washington, DC: **The World Bank.**

Auboin, M.: 2016 Improving the Availability of Trade Finance in Developing Countries: An Assessment of Remaining Gaps. CESifo **Working Paper** NO. 5784. Geneva, Switzerland: Center for Economic Studies & Ifo Institute.

Auboin, M., & Engemann, M.: 2013a Testing the Trade Credit and Trade Link: Evidence from Data on Export Credit Insurance. **Staff Working Paper** ERSD-2012-18. World Trade Organization

Economic Research and Statistics Division.

Auboin, M., & Engemann, M.: 2013b — Trade finance in periods of crisis: What have we learned in recent years? (ERSD-2013-01). Geneva: WTO **Staff Working Papers**. http://hdl.handle.net/10419/80075

Auboin, M., & Meier-Ewert, M.: 2003 — Improving the Availability of Trade Finance during Financial Crises. Geneva: **World Trade Organization (WTO)**, Economic Research and Statistics Division.

Baldwin, R.: 2009 — The great trade collapse: What caused it and what does it mean? **VOX**: https://voxeu.org/article/great-trade-collapse-what-caused-it-and-what-does-it-mean

Beck, S., & DiCaprio, A.: 2020 — Finance That Matters: International Finance Institutions and Trade. A. Klasen (Ed.), The Handbook of Global Trade Policy (s. 201-220). Hoboken, NJ: **John Wiley & Sons**.

Beck, S., Shinozaki, S., Ferino, M. I., Zhang, Q., & Mangampat, E.: 2013 — Asian Development Bank Trade Finance Survey: Major Findings. (ADB Brief No. 11). Manila: Asian Development Bank (ADB)

https://digitalcommons.ilr.cornell.edu/intl/241/

Bergami, R.: 2006 — The Link Between Incoterms 2000 and Letter of Credit Documentation Requirement and Payment Risk. **Journal of Law and Governance**, 51-60.

Berman, N., & Martin, P.: 2011 — Financial Crises and African Trade. J.-P. Chauffour, & M. Malouche içinde, **Trade Finance During the Great Trade Collapse** (s. 161-171). Washington, DC: The World Bank.

Berman, N., & Martin, P.: 2012 — The Vulnerability of Sub-Saharan Africa to Financial Crises: The Case of Trade. **IMF Economic Review**, 60(3), 329-364. doi:10.1057/imfer.2012.13

Berne Union. : 2011 — **Year Book** 2011. London: Exporta Publihing.

Berne Union. : 2017 — Statistics. London: Berne Union.

Berne Union. : 2019 — About Us: About the Berne Union. The Berne Union: https://www.berneunion.org/Stub/Display/8

Berne Union. : 2019 — Berne Union. About Us: History of the Berne Union:

https://www.berneunion.org/Stub/Display/41

Bhargava, V. : 2006 **Global Issues for Global Citizens**. Washington, DC: The World Bank.

Bhogal, T. S., & Triverdi, A. K.: 2008 **International Trade Finance**. New York: Palgrave Macmillan.

Bikhchandani, S., & Sharma, S.: 2001 Herd Behavior in Financial Markets. **IMF Staff Papers**, 47(3). International Monetary Fund.

BIS. : 2014 Trade finance: developments and issues. **CGFS Papers** No. 50. https://www.bis.org/publ/cgfs50.pdf

Blackmon, P. : 2017 **The Political Economy of Trade Finance: Export credit agencies, the Paris club and the IMF**. London: Routledge.

Brambila-Macias, J., Massa, I., Salois, M. J.: 2011 The Impact of Global Crises, Trade & Finance and Aid on Export Flows: A Developing Country Perspective. DIIS **Working Paper** 2011:17. Copenhagen, Denmark: Danish Institute for International Studies, DIIS.

Brandi, C., & Schmitz, B.: 2015a Financing Global Development: The Potential of Trade Finance. Bonn, Germany: **German Development**

Institute / Deutsches Institut für Entwicklungspolitik (DIE).

Brandi, C., & Schmitz, B.: 2015b — Trade Flows in Developing Countries: What is the Role of Trade Finance? **Discussion Paper**. Bonn: German Development Institute (DIE).

Brandi, C., Schmitz, B., & Hambloch, C.: 2014 — The Availability of Trade Finance: A Challenge for Global Economic Governance. Bonn, Germany: **German Development Institute** / Deutsches Institut für Entwicklungspolitik (DIE).

Bricongne, J.-C., Fontagné, L., Gaulier, G., Taglioni, D., & Vicard, V :2012 — Firms and the global crisis: French exports in the turmoil. **Journal of International Economics**, 87(1), s. 134-146.

Brodie, I. : 2010 — International Financial Institutions and the G20. Options Politiques. **Policy Options** - Institute for Research on Public Policy.

Bull, B., & Bøa§s, M.: 2003 — Multilateral Development Banks as Regionalising Actors: The Asian Development Bank and the Inter-American Development Bank. **New Political Economy**, 8(2), 245-261.

CADTM — https://www.cadtm.org/The-London-Club?lang=en online, 19.09.2018

Castello, M. A., & Gruber, D.:2015 **The Financial Channel in International Trade**. Procedia Economics and Finance, 30, s. 175-186. doi:10.1016/S2212-5671(15)01281-2

Cerruti, C., Cruikshank, E. D., Julià, J. M., Martínez, A. F., & Saché, M. S.: 2019 DARP—**Creating Distressed Assets Markets**. Washington, DC: International Finance Corporation.

Chauffour, J.-P., & Farole, T.: 2009 Trade Finance in Crisis : Market Adjustment or Market Failure ? (5003). World Bank **Policy Research Working Paper.**

Chauffour, Jean-Pierre & Saborowski, Christian & Soylemezoglu, Ahmet I.: 2010 "Trade finance in crisis: should developing countries establish export credit agencies?" **Policy Research Working Paper Series** 5166, The World Bank.

Chor, D., & Manova, K.: 2012 Off the cliff and back? Credit conditions and international trade during the global financial crisis. **Journal of International Economics**, 87(1), s. 117-133. doi:10.1016/j.jinteco.2011.04.001

Chui M., Domanski D., Kugler P., Shek, J.: 2010 The collapse of international bank finance during the crisis: evidence from syndicated loan markets, **BIS Quarterly Review**, Bank for International Settlements, September.

Coface. : 2019 — Group: Our History. **Coface**: https://www.coface.com/Group/Our-history

Contessi, S., & de Nicola, F.: 2012 — The Role of Financing in International Trade during Good Times and Bad. **The Regional Economist**, 20(1), 5-9. https://www.stlouisfed.org/publications/regional-economist/january-2012/the-role-of-financing-in-international-trade-during-good-times-and-bad

De Haas, R., Van Horen, N.: 2011 — Running for the Exit: International Banks and Crisis Transmission, DNB Working Papers, Netherlands Central Bank, Research Department

Delikanli, I. U., Dimitrov, T., & Agolli, R.: 2018 — **Multilateral Development Banks**. Cham: Palgrave Macmillan.

Demir, B. : 2015 — Global standards on government-backed trade finance: Challenges for developing countries and the role of multilateral development banks. A. Klasen, & F. Bannert, **The Future of Foreign Trade Support: Setting Global Standards for Export Credit and Political Risk Insurance** (s. 159-166). London: Global Policy.

Demir, B. : 2020 — Trade and Developing-Country Exporters: The Case of Latin American and Caribbean Countries. A. Klasen

içinde, **The Handbook of Global Trade Policy** (s. 328-350). Hoboken, NJ: John Wiley & Sons.

Demir, B., & Javorcik, B.: 2018 — Don't throw in the towel, throw in trade credit! **Journal of International Economics**, 111(C), 177-189. doi:https://doi.org/10.1016/j.jinteco.2018.01.008

DiCaprio, A., Beck, S., & Daquis, J. C.: 2014 — ADB Trade Finance Gap, Growth, and Jobs Survey. Manila: **Asian Development Bank** (ADB).

DiCaprio, A., Beck, S., & Daquis, J. C.: 2015 — 2015 Trade Finance Gaps, Growth, And Jobs Survey. Manila: **Asian Development Bank** (ADB).

DiCaprio, A., Beck, S., Yao, Y., & Khan, F.: 2016 — 2016 Trade Finance Gaps, Growth, And Jobs Survey. Manila: **Asian Development Bank** (ADB).

DiCaprio, A., Kim, K., & Beck, S.: 2017 — 2017 Trade Finance Gaps, Growth, And Jobs Survey. Manila: **Asian Development Bank** (ADB).

Dorsey, T.: 2009 — Trade Finance Stumbles. (J. Clift, Dü.) **Finance and Development**, 18-19. https://www.imf.org/external/pubs/ft/fandd/2009/03/index.htm

dos Santos, P. P., & Kearney, M.: 2018 Multilateral Development Banks' Risk Mitigation Instruments for Infrastructure Investment. Washington, DC: **Inter-American Development Bank**.

EBA.: 2015 **Eba Report On Net Stable Funding Requirements under Article 510 of the CRR**. Paris: European Banking Authority (EBA).

EBRD.: 2003 **Regional Trade Facilitation Programme: Fostering Transition Through Documentary Credit**. Special Study . London: Evaluation Department.

EBRD.: 2007 Annual Report. London: **European Bank for Reconstruction and Developmen**t.

EBRD.: 2008 Annual Report. London: **European Bank for Reconstruction and Development**.

EBRD: 2009 Annual Report. London: **European Bank for Reconstruction and Development**.

EBRD.: 2010a Transition Report Recovery and Reform. London: **European Bank for Reconstruction and Development**.

EBRD.: 2010b — Trade Facilitation Programme. Summary of Special Study. London: **EBRD Evaluation Department**.

EBRD. : 2019 — Trade Facilitation Programme. EBRD Website: https://www.ebrd.com/work-with-us/trade-facilitation-programme.html

ECB: 2011 — https://www.ecb.europa.eu/press/pr/date/2011/html/pr110915.en.html visited on 24.12 .2019

Elingsen, T., & Vlachos, J.: 2011 — The Theoretical Case for Trade Finance in a Liquidity Crisis. J.-P. Chauffour, & M. Malouche, **Trade Finance during the Great Trade Collapse** (s. 235-243). Washington DC: The World Bank.

Erbenová, M., Liu, Y., Kyriakos-Saad, N., López-Mejía, A., Gasha, G., Mathias, E., Almeida, Y.: 2016 — The Withdrawal of Correspondent Banking Relationships: A Case for Policy Action. IMF **Staff Discussion Note**. INTERNATIONAL MONETARY FUND (IMF).

Evenett, S. J., & Vines, D.: 2012 — Crisis-era protectionism and the multilateral governance of trade: an assessment. **Oxford Review of Economic Policy**, 28(2), s. 195–210. doi:10.1093/oxrep/grs019

Export Credit Agencies to Step Up Loan Books.: 2008 — (6), 26. Asia Today International.

Export Development Canada.: 2019 — About Us: Corporate Information. Export Development Canada: https://www.edc.ca/en/about-us.html

Faure, R., Prizzon, A., & Rogerson, A.: 2015 — Multilateral Development Banks A Short Guide. ODI. London: **Overseas Development Institute** (ODI).

Federal Reserve Bank of ST. Louis.: 2019 — Categories: Money, Banking, & Finance: Interest Rates: LIBOR Rates. Federal Reserve Bank of ST. Louis Website: https://fred.stlouisfed.org/

Felbermayr, G. J., & Yalcin, E.: 2011 — Export Credit Guarantees and Export Performance: An Empirical Analysis for Germany. (116), 41. Munich: **Ifo Working Paper**.

Ferri, G., Liu, L. G., & Stiglitz, J. E.: 1999 — The Procyclical Role of Rating Agencies: Evidence from the East Asian Crisis. Economic Notes by **Banca Monte dei Paschi di Siena SpA**, 28(3), 335-355. doi: https://doi.org/10.1111/1468-0300.00016

FFIEC. : 2019 — Reports - Statistical Releases E.16 Country Exposure Lending Survey and Country Exposure Information Report. The Federal Financial Institutions Examination Council Website: https://www.ffiec.gov/E16.htm

FImetrix for IMF and BAFT. : 2009 **IMF-BAFT Trade Finance Survey**: A Survey among Banks Assessing the Current Trade Finance Environment. Washington, DC. https://info.publicintelligence.net/IMFBAFTSurveyResults20090331.pdf

FImetrix for IMF and BAFT.: 2010 Trade Finance Services: Current Environment & Recommendations: Wave 3. Washington, DC. https://docplayer.net/24349924-Trade-finance-services.html

Finance and Markets Global Practice of the World Bank Group.: 2015 Withdrawal from Correspondent Banking: Where, Why, and What to Do About It. Washington, DC, USA: **The World Bank Group**.

Financial Times: 2009 https://www.ft.com/content/9e1e0d82-fe2b-11dd-932e-000077b07658 19 February 2009. Zoellick urges a global response online, visited on 06.10.2018

Fingerand, K. M., & Schuknecht, L.: 1999 Trade, finance and financial crises. **WTO Special Studies**, No. 3. Geneva: World Trade Organization.

Fosu, A. K., & Naudé, W. : 2009 The global economic crisis: Towards syndrome-free recovery for Africa. **WIDER Discussion Paper**, No. 2009/03. Helsinki: The United Nations

University World Institute for Development Economics.

FSB. : 2019 — FSB publishes updates on work to assess and address correspondent banking declines. Press Release. Basel: Financial Stability Board.

G20 2009 London Summit Leaders' Statement: 2009 — https://www.imf.org/external/np/sec/pr/2009/pdf/g20_040209.pdf visited on 17.03.2019 20.30

G-20 (Group of 20 Finance Ministers and Central Bank Governors): 2009 — "Resisting Protectionism and Promoting Global Trade and Investment." In "Leaders' Statement: The Global Plan for Recovery and Reform," G-20, London, April 2. http://www.g20.utoronto.ca/2009/2009communique0402.pdf

Galat, B., & Ahn, H. : 2011 — Expanded Capacity for Unfunded and Funded Support for Trade with Emerging Markets. J.-P. Chauffour, & M. Malouche, **Trade Finance during the Great Trade Collapse** (s. 301-317). Washington, DC: The World Bank.

Glady, N., & Potin, J.: 2011 — Bank Intermediation and Default Risk in International Trade - Theory and Evidence. 2018 tarihinde ESSEC Business School, mimeo.:

https://www.etsg.org/ETSG2011/Papers/Potin.pdf

Gomez, A.: 2002 — IFC Approves $600 Million Trade Finance for Brazilian Banks . IFC Website: https://ifcext.ifc.org/IFCExt/Pressroom/IFCPressRoom.nsf/0/4286699C60C071B885256C5B00569EFD?OpenDocument

Hallaert, J.-J.: 2011 — Why Boosting the Availability of Trade Finance Became a Priority during the 2008–09 Crisis. J.-P. Chauffour , & M. Malouche, **Trade Finance during the Great Trade Collapse** (s. 402). Washington, D.C.: The World Bank.

Herger, N.: 2009 — Trade Finance and Financial Crises. NCCR-**Trade Working Paper** No. 2009/35. Switzerland: NCCR-International Trade.

Hou, Z., & Dirk, W. t.: 2013 — **Trade Finance and the Commonwealth, Commonwealth Finance Ministers Meeting**. London: Commonwealth Secretariat.

Hufbauer, G., & Stephenson, S.: 2009 — Trade policy in a time of crisis: Suggestions for developing countries. **CEPR Policy Insight** No 33. Washington, DC: Centre for Economic Policy Research.

Humphrey, J.: 2011 — Trade Finance in Africa: A Survey of Firms. J.-P. Chauffour, & M. Malouche, **Trade Finance during the Great Trade Collapse** (s. 149-160). Washington DC: The World Bank.

Hwang, S., & Im, H.: 2012 — Financial Shocks and Trade Finance: Evidence from Korea.

Iacovone, L., Ferro, E., Pereira-López, M., & Zavacka, V.: 2019 — Banking Crises and Exports: Lessons from the Past. **Journal of Development Economics**, 138, s. 192-204. doi:10.1016/j.jdeveco.2018.12.005

ICC. : 2008 — Trade Finance in the Current Financial Crisis: Preliminary Assessment of Key Issues. Paris: **The ICC Banking Commission**. http://www.confindustria.ge.it:8080/chrapp/chrCorrelati/upload/doc/ICC_ReportTradeFinance11Nov2008_TrProd.pdf

ICC. : 2009 — Rethinking Trade Finance 2009: **An ICC Global Survey**. Paris: International Chamber of Commerce (ICC).

ICC. : 2010 — Rethinking Trade Finance 2010: **Global Survey**. Paris: International Chamber of Commerce (ICC).

ICC. : 2011 Rethinking Trade & Finance: **Global Survey** 2011. Paris: International Chamber of Commerce.

ICC. : 2012 Rethinking Trade and Finance. Paris: International Chamber of Commerce.

ICC. : 2013 Rethinking Trade & Finance 2013 An ICC Private Sector Development Perspective. Paris: International Chamber of Commerce.

ICC. : 2014 Rethinking Trade & Finance. Paris: International Chamber of Commerce.

ICC. : 2015 Rethinking Trade & Finance 2013 An ICC Private Sector Development Perspective. Paris: International Chamber of Commerce.

ICC.: 2017 Rethinking Trade & Finance. Paris: International Chamber of Commerce.

ICC. : 2018 Global Trade – Securing Future Growth. Paris: International Chamber of Commerce.

IDB.: 2005 News: IDB launches Regional Trade Finance Facilitation Program with 16 confirming Banks. IDB Website: https://www.iadb.org/en/news/idb-launches-regional-trade-finance-

facilitation-program-16-confirming-banks

IDB.: 2006 — The Inter-American Development Bank's Experience in Latin Amerıica and The Caribbean. Inter-American Development Bank.

IDB.: 2011 — Aid-for-Trade: Case Story Inter-Amerıian Development Bank (IDB). **OECD & WTO**.

IEG.: 2011 — The World Bank Group's Response to the Global Economic Crisis Phase 1. Washington DC: **World Bank Publications.**

IEG.: 2012 — The World Bank Group's Response to the Global Economic Crisis Phase 2. Washington DC: **The World Bank Group**.

IEG.: 2013 — Evaluation of the International Finance Corporation's Global Trade Finance Program, 2006–12. Washington, DC: **World Bank Publications**.

IFC. : 2009 — IFC Crisis Response Initiative: Targeted, Temporary and Timely. DDVE Seminar Presentation 2009-14. Washington, DC: The World Bank.

IFC. : 2010 Global Trade Liquidity Program. **IFC Bulletin** No.3. International Finance Corporation.

IFC. : 2011 IFC Trade and Supply Chain Programs Recognized by Leading Industry Magazine. IFC Website: https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/ifc+trade+and+supply+chain+programs+recognized+by+leading+industry+magazine

International Institute of Finance (IIF) Emerging Markets Bank Lending Conditions Survey 2019 Q1

IMF. : 2003 Trade Finance in Financial Crises: Assessment of Key Issues. Washington, DC: **International Monetary Fund**.

IMF. : 2017 Monetary Policy and Central Banking. Factsheet. Washington, DC: **International Monetary Fund**.

IMF. : 2019 International Liquidity selected indicators. IMF Data Website: https://data.imf.org/regular.aspx?key=61545856

IMF Communications Department.: 2016 News: Speeches. International Monetary Fund:https://www.imf.org/en/News/Articles/2016/07/15/13/45/SP071816-

Relations-in-Banking-Making-It-Work-For-Everyone

IMF Statistics Department .: 2010 — International Financial Statistics. Washington, DC: **International Monetary Fund**.

IMF-BAFT. : 2009 — Trade Finance Survey: A Survey among Banks Assessing the Current Trade Finance Environment. Washington, DC: FImetrix for IMF and BAFT.

Independent Evaluation Department.: 2011 — Real-Time Evaluation of Asian Development Bank's Response to the Global Economic Crisis of 2008–2009. Asian Development Bank.

Insurance Journal — https://www.insurancejournal.com/news/international/2008/10/16/94686.htm Visited on 06.11.2019

Inter-Agency Task Force on Financing for Development: 2018 — Financing for Development: Progress and Prospects 2018. New York: United Nations.

International Monetary Fund.: 2003 — Global Financial Stability Report: Market Developments and Issues. Washington, DC: International Monetary Fund, Publication Services.

Ismailescu, I & Kazemi, Hossein B.: 2010 — The Reaction of Emerging Market Credit Default Swap Spreads to Sovereign Credit Rating Changes (October 29,

2009). **Journal of Banking and Finance**, Vol. 34, pp. 2861-2873, 2010

Issing, O.: 2000 "The globalisation of financial markets," (Eurpoean Central Bank (ECB), 12 September 2000) Online, 19.10.2019, European Central Bank http://www.ecb.int/press/key/date/2000/html/sp000912_2.en.html

International Trade Administration https://www.export.gov/article?id=Trade-Finance-Guide-Chapter-5-Open-Account visited on 03.08.2019

ITC. : 2009 How to Access Trade Finance: A guide for exporting SMEs. Geneva: International Trade Centre.

Ivashina, V., & Scharfstein, D.: 2009 Bank lending during the financial crisis of 2008. **Journal of Financial Economics**, 319-338.

Jacobs, P.: 2005 Indonesia's Experience in Dealing with Trade Finance Shortfalls during Financial Crisis J.-Y. Wang, & M. V. Ronci, **Access to Trade Finance in Times of Crisis** (s. 57-62). Washington, DC: International Monetary Fund.

Jordan, X. A. : 2005 Recent Argentine and Brazilian Crisis and Effective Multilateral Development

Bank Interventions. J.-Y. Wang, & M. V. Ronci, **Access to Trade Finance in Times of Crisis** (s. 83-92). Washington, DC: International Monetary Fund.

Kalkan, S., Dundar, H. C., & Dinccag, A.: 2010 — Trade and Trade Finance in Turkey: What is the Impact of the Finance Problems in the Decrease in Exports? **TEPAV Policy Note**. (Economy Policy Research Foundation of Turkey) TEPAV.

Kang, D. W., & Ligthart, N.: 2016 — VoxEU. **VOX**, CEPR Policy Portal: https://voxeu.org/article/ecb-and-fed-comparative-narrative

Kijin, K., Beck, S., Tayag, M. C., & Latoja, M. C.: 2019 — 2019 Trade Finance Gaps, Growth, And Jobs Survey. Manila: Asian Development Bank.

Korinek, J., Le Cocguic, J., & Sourdin, P.: 2010 — The Availability and Cost of Short-Term Trade Finance and its Impact on Trade. OECD Trade Policy Papers No. 98. Paris: OECD Publishing.

Lane, Philip R. & Milesi-Ferretti, Gian Maria: 2008 — "The Drivers of Financial Globalization" American Economic Review, American Economic Association, vol. 98(2), pages 327-332, May.

Lessambo, F. I. : 2015 **International Financial Institutions and Their Challenges**. New York: Palgrave Macmillan.

Levchenko, A. A., Lewis, L. T., & Tesar, L. L.: 2011 The Role of Trade Finance in the U.S. Trade Collapse: a Skeptic's View. J.-P. Chauffour, & M. Malouche, **Trade Finance During the Great Trade Collapse** (s. 133-147). Washington, DC: The World Bank.

Liu, T., Lu, D., & Woo, W. T.: 2018 Trade, Finance and International Currency. **China International Conference in Finance** 2018 (s. 66). Tianjin: Editorial Express.

Love, I., Preve, L. A., & Sarria-Allende, V.: 2007 Trade Credit and Bank Credit : Evidence from Recent Financial Crises. **Journal of Financial Economics**, 83(2), s. 453-469. doi:10.1016/j.jfineco.2005.11.002

Malaket, A.: 2015 Leveraging Supply Chain Finance for Development. E15Initiative. Geneva, Switzerland: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum. www.e15initiative.org

Malaket, A.: 2020 **How Trade Finance Works.** A. Klasen (Ed.), The Handbook of Global Trade Policy (s. 468-493). Hoboken, NJ: John Wiley & Sons.

Malouche, M.: 2009 — Trade and Trade Finance Developments in 14 Developing Countries Post September 2008 : A World Bank Survey. (5138). **World Bank**. https://openknowledge.worldbank.org/handle/10986/4329

Malouche, M. : 2011 — World Bank Firm and Bank Surveys in 14 Developing Countries, 2009 and 2010. J.-P. Chauffour, & M. Malouche, **Trade Finance during the Great Trade Collapse** (s. 173-197). Washington, DC: The World Bank.

Marsh, W. : 2009 — IFC agrees to $60 mln credit for Exim Bank of India . Reuters: https://www.reuters.com/article/imf-trade/ifc-agrees-to-60-mln-credit-for-exim-bank-of-india-idUSN1631073820090617 adresinden alındı

Mbuyu Capital.: 2018 — Trade Finance in Frontier & Emerging Markets. Mbuyu Capital.

Minford, P. : 2015 — **VOX** Common sense on the financial crisis. CEPR Policy Portal: https://voxeu.org/article/common-sense-financial-crisis

Mora, J., & Powers, W. : 2011 — Global Perspectives in the Decline of Trade Finance. J.-J. Hallaert, & M. Malouche, **Trade Finance During the**

Great Trade Collapse (s. 117-131). Washington, DC: The World Bank.

Moravcsik, Andrew M.: 1989 "Disciplining trade finance: the OECD Export Credit Arrangement," International Organization, **Cambridge University Press**, vol. 43(1), pages 173-205, January.

Morel, F. : 2011 Credit Insurance in Support of International trade: Observations throughout the Crisis. J.-P. Chauffour, & M. Malouche, **Trade Finance During the Great Trade Collapse** (s. 337-355). Washington, DC: The World Bank.

Morton, K.:2019 Mind the gaps: On trillions, trade and financing women-owned and run businesses. TFX Website: https://www.txfnews.com/News/Article/6804/Mind-the-gaps-On-trillions-trade-and-financing-women-owned-and-run-businesses

Mulder, H., & Sheikh, K.: 2005 Banks, Trade Finance, and Financial Distress. J.-Y. Wang, & M. Ronci, **Access to Trade Finance in Times of Crisis** (s. 39-53). Washington, DC: International Monetary Fund.

Narain, S.: 2015 — Trade Finance for Sustainable Development In Asia and The Pacific. **Asia-Pacific Development Journal**, 22(2), 103-133.

Nelson, R. M. : 2018 — Multilateral Development Banks: Overview and Issues for Congress. Washington, DC: **Congressional Research Service**.

Neumayer, E. : 2003 — The Determinants of Aid Allocation by Regional Multilateral Development Banks and United Nations Agencies. International Studies Quarterly, 47(1), 101-122. https://www.jstor.org/stable/3096078

Niepmann, F., & Schmidt-Eisenlohr, T. : 2013 — Banks in International Trade Finance: Evidence from the U.S. **Staff Report** No. 633. Federal Reserve Bank of New York.

OECD. : 2016 — OECD Factbook 2015-2016. Economic, Environmental and Social Statistics. Paris: **OECD Publishing**.

OECD. : 2018 — OECD Factbook 2013. Economic, Environmental and Social Statistics. Paris: **OECD Publishing**.

Office of Cofinancing Operations.: 2005 Commercial Cofinancing and Guarantees. Manila: Asian Development Bank.

Office of Evaluation and Oversight.: 2016 Evaluation of IDB Group's Work Through Financial Intermediaries. Thematic Evaluation. Washington, DC, United States of America: Inter-American Development Bank.

Onis, Z., & Webb, Steven B.: 1992 "Political economy of policy reform in Turkey in the 1980s," **Policy Research Working Paper Series** 1059, The World Bank.

OVE.:2016a Evaluation of IDB Group's Work Through Financial Intermediaries Trade Finance. New York: Inter-American Development Bank.

OVE.:2016b Evaluation of IDB Group's Work through Financial Intermediaries. Washington, DC: Inter-American Development Bank.

Özmen, M. Utku & Yılmaz, E: 2017 Co-movement of exchange rates with interest rate differential, risk premium and FED policy in "fragile economies"," Emerging Markets Review, Elsevier, vol. 33(C), pages 173-188.

Papadimitriou, D. B., Phillips, R. J., Community-Based Factoring Companies

& Wray, L. R.: 1994 and Small Business Lending. **Working Paper** No. 108. Jerome Levy Economics Institute.

Paravisini, D., Rappoport V., & Schnabl P.: 2015 Specialization in Bank Lending: Evidence from Exporting Firms. **Working Paper** 21800, National Bureau of Economic Research http://www.nber.org/papers/w21800

Pasadilla, G. O. : 2010 Financial crisis, trade finance, and SMEs: Case of Central Asia. **ADBI Working Paper**, No. 187. Tokyo: Asian Development Bank Institute (ADBI).

Perry, G. : 2011 Growing Business or Development Priority? Multilateral Development Banks' Direct Support to Private Firms. Washington, DC: The Center for Global Development.

Pisani-Ferry, J., & Santos, I. : 2009 Reshaping the global economy. Bruegel **Policy Contribution**, No. 2009/04. Brussels, Belgium: Bruegel, Brussels.

Postan, M. M. : 1973 **Medieval Trade and Finance. Cambridge**: Cambridge University Press.

Putz, R., Ben Ahmed, G., Regional Development Banks' Response

Beck, S., & Carrera, D.: 2011 to the Crisis: Scaling Up the Trade Finance Facilities. J.-P. Chauffour, & M. Malouche, **Trade Finance during the Great Trade Collapse** (s. 319-336). Washington, DC: The Workd Bank.

RBI. : 2010 Report on Currency and Finance 2008-09. Mumbai: Reserve Bank of India.

Rhee, Y. W. : 1989 Trade Finance in Developing Countries. **Policy & Research Series**; no. 5. Washington, DC: The World Bank.

Rozanski, M.: 2009 Global Trade Finance Program.

Schmidt-Eisenlohr, T.: 2013 Towards a theory of trade finance. **Journal of International Economics**, 91(1), 96-112. doi:10.1016/j.jinteco.2013.04.005

Schoon, N.: 2016 **Modern Islamic Banking: Products and Processes in Practice**. West Sussex: John Wiley & Sons.

Serena Garralda, José María & Vasishtha, Garima: 2015 What Drives Bank-intermediated Trade Finance? Evidence from Cross-country **Analysis Documentos de Trabajo** N.º 1524 Madrid: Banco De Espana,

Staff Team from the Japan Bank for International Cooperation: 2005 The JBIC Financing Facility for Indonesia .-Y. Wang, & M. V. Ronci, **Access to Trade Finance in Times of**

Crisis (s. 76-82). Washington, DC: International Monetary Fund.

Stein, P., Goland, T., & Schiff, R.: 2010 — Two trillion and counting : assessing the credit gap for micro, small, and medium-size enterprises in the developing world. **Working Paper** 71315. Washington, DC: World Bank.

Stephens, M.: 1998 — Export Credit Agencies, Trade Finance and South East Asia. (WP/98/175), 53. **IMF Working Paper**.

Swarb: 2019 — https://swarb.co.uk/intraco-limited-v-notis-shipping-corporation-ca-1981/ visited on 03.08.2019

Summers, L. H.: 2000 — International Financial Crises: Causes, Prevention, and Cures. **The American Economic Review**, 90(2), 1-16. http://links.jstor.org/sici?sici=0002-8282%28200005%2990%3A2%3C1%3AIFCCPA%3E2.0.CO%3B2-H

The Commonwealth Treasury of Australia, The Task Force.: 1998 — Task Force on International Financial Reform. The Commonwealth Treasury of Australia. http://archive.treasury.gov.au/documents/189/PDF/fin5.PDF

The Commonwealth Treasury of Australia, The Task Force.: 1999 — Report of the Task Force on International Financial Reform. The Commonwealth Treasury of Australia.

http://archive.treasury.gov.au/contentitem.asp?NavId=&ContentID=194

The World Bank.: 1989 — **World Development Report** 1989. Washington DC : Oxford University Press.

The World Bank.: 2019 — World Development Indicators. DataBank: https://databank.worldbank.org/

Thompson, M: 2019 — Is the OECD Consensus still fit for purpose?

TFX Website — https://www.txfnews.com/News/Article/6639/Is-the-OECD-Consensus-still-fit-for-purpose

Trade Exchange Autumn Winter: 2015 — Facts & Figures. London, United Kingdom: EBRD Communications.

Trade Exchange Autumn Winter: 2016 — Facts & Figures. London, United Kingdom: EBRD Communications.

Triami Media: 2010 — Euribor Rates: Euribor charts/graphs. Euribor Rates Website: https://www.euribor-rates.eu/en/euribor-charts/

TURKSTAT — http://www.tuik.gov.tr/Start.do

Turner, T., Mokaddem, L., — Assessment of the Trade Finance Market

& Ben Ahmed, G.: 2010 in Africa Post-Crisis. **Working Paper Series** N° 118. Tunis, Tunisia: African Development Bank.

U.S. Department of Commerce International Trade Administration: 2012 Trade Finance Guide. A Quick Reference for U.S. Exporters. Washington, DC: U.S. Department of Commerce International Trade Administration.

UNCTAD.: 2012 Trade Financing and Regional Financial Institutions from a South–South Perspective. TD/B/C.II/MEM.2/11. Geneva.

UNCTAD.: 2019 Key Statistics and Trends in International Trade 2018. UNCTAD/DITC/TAB/2019/2. Geneva: United Nations.

van Bommel, S.: 2012 Crisis effects on trade finance. A study of the effect of the 2007-2009 Global Financial Crisis on trade finance in Eastern European countries. Tilburg, Netherlands: Tilburg University, Finance Faculty .

van der Veer, K. J.: 2010 The Private Credit Insurance E¤ect on Trade. (264). Amsterdam: **DNB Working Paper**. http://ssrn.com/abstract=1950076

van der Veer, K. J.: 2011 — Private Trade Credit Insurers During the Crisis: The Invisible Banks. J.-P. Chauffour, & M. Malouche, **Trade Finance during the Great Trade Collapse** (s. 199-212). Washington, DC: The World Bank.

van Wersch, Cornelia Lotte: 2019. — "Statistical Coverage of Trade Finance - Fintechs and Supply Chain Financing," **IMF Working Papers 19/165**, International Monetary Fund.

Wang, J.-Y., & Tadesse, H.: 2005 — Overview. J.-Y. Wang, & M. Ronci, **Access to Trade Finance in Times of Crisis** (s. 1-15). Washington, DC: International Monetary Fund.

Working Group on Trade, Debt and Finance.: 2002 — The Relationship Between Trade And Finance. WT/WGTDF/W/4. World Trade Organization.

Working Group on Trade, Debt and Finance.: 2003 — Report to the General Council. World Trade Organization.

Working Group on Trade, Debt and Finance.: 2009 — Report of the Meeting of 31 March 2009 WT/WGTDF/M/18, 9 July 2009, World Trade Organization.

World Bank.: 1999 — Turkey - Export Finance Intermediation Loan (EFIL) Project (English). Washington, DC: World Bank.

World Bank.: 2008 Turkey - Fourth Export Finance Intermediation Loan (EFIL IV) (English). Washington, DC: World Bank.

World Bank.: 2015 Withdraw from correspondent banking : where, why, and what to do about it, Working Paper No: 101098 Washington, D.C. : World Bank Group.

World Bank: 2018 Global Financial Development Report 2017/2018: Bankers without Borders. Washington, DC: World Bank. doi:10.1596/978-1-4648-1148-7.

WTO. : 2008a News and events: Archives. WTO Website: https://www.wto.org/english/news_e/news08_e/gc_dg_stat_12nov08_e.htm visited on 06.11.2018

WTO : 2008b News and events: Archives. WTO Website: https://www.wto.org/english/news_e/news08_e/trade_finance_12nov08_e.htm visited on 06.11.2018

WTO : 2009 https://www.wto.org/english/thewto_e/coher_e/challenges_e.htm visited on 20.09.2019

WTO.: 2016 Trade finance and SMEs. Geneva: World Trade Organization.

WTO Secretariat.: 1998 Trade Policy Review. Geneva: World Trade Organization.

Wto Secreteriat.: 2014 Expert Group Meeting on Trade Finance. Informal Report by The Wto Secretarıat. Geneva: Working Group on Trade, Debt and Finance.

WTO, IFC. : 2019 Trade Finance And The Compliance Challenge. International Finance Corporation/World Trade Organization.

WTO, O. a.: 2010 Report on G20 Trade and Investment Measures. UNCTAD.

APPENDIX I

Trade Finance Product Categorization

Category	Product	Description
Inter-firm / supply chain financing	Open account	Contract is settled between importer and exporter without third party security or risk management arrangements, either directly or (most commonly) through transfers between their banks; one party (normally the exporter) extends credit by way of accepting payment after a certain (usually 30-90 days)
'Traditional' bank financing	Investment capital	Medium term finance for investment in the means of production (e.g. machinery)
	Working capital	Short-term finance provided to cover ongoing costs (addressing mismatch in timing between cash receipts and costs incurred) including payment of suppliers, production, transport costs, etc.; also used to cover risks of (or real) delays in payments, effects of currency fluctuations, etc.
	Pre-export finance	Similar to working capital but bank takes a security interest in the goods being shipped and a right to receive payment for those goods directly from the importer; typically used for commodity production.
Payment mechanisms and liquidity	Letter of credit-usance	Provided by importer's bank to exporter's bank; when exporter fulfils L/C conditions the relevant documents of proof are submitted to exporter's bank who submits them to importer's bank, who remits funds to exporter's bank which then pays exporter (importer subsequently remits funds to importer's bank). This is designed to mitigate the counterparty risk inherent in open account transactions
	Supplier credit	Extended or deferred payment terms offered by the supplier to the buyer, but typically linked with bank financing to enable exporter to receive cash on delivery (e.g. factoring)
	Buyer credit	Term financing provided to finance cash payments due to supplier
	Countertrade	Addresses liquidity (in particular access to foreign exchange, and so particularly relevant in emerging economies) by

		promoting two-way trade of equivalent value merchandise (e.g. barter, buy-back, counterpurchase)
	Factoring and forfaiting	Factoring is a financial service offered that purchases an exporter's invoices or accounts receivable at a discount and assumes the risk of non-payment; addresses both liquidity and risk mitigation. Forfaiting is similar to factoring but typically involves medium-term accounts receivables for exporters of capital goods or commodities with long credit periods
Risk management	Advance payment guarantees	Security provided to importer when exporter requires mobilisation payment; this is usually a matching amount callable on demand.
	Performance bonds	Security provided to importer (normally in case of capital
	Refund guarantees	Security provided to importer when importer is required to make stage payments during manufacturing by exporter (normally in case of large capital goods export), callable in the event of non-delivery of goods.
	Hedging	Security (e.g. through a financial instrument issued by a bank) to offset market (rather than counterparty) risks, including fluctuations in exchange rates, interest rates, and commodity prices.
Export credit insurance / guarantees	Export credit insurance	Insures exporters against a range of risks including: nonpayment, exchange rate fluctuations, political risk, etc.; Can be used to securitize other forms of trade and non-trade finance from banks
	Export credit guarantees	Instruments to protect banks providing trade finance; facilitates the degree to which banks can offer trade finance products (e.g. to SMEs without sufficient export track records)

Source: (Chauffour & Farole, 2009: 23, 24)

APPENDIX II

Trade Finance vs Trade Credit vs Trade Loan

In some studies, it is seen that trade finance and trade credit have been substituted each other by the authors. Furthermore, when the trade loan is involved in the text, there may be a confusion. Hence, there should be a brief definition of these for clearance.

Trade Finance: Although in Chapter I has its definition and following discussions widely described the term, it can be repeated shortly.

Trade Finance is the financing of trade with or without bank intermediation or third-party institutions that facilitate the trade which is a teeter totter of payment/risk and goods/risk. It is an umbrella term and includes a great variety of tools and instruments such as L/C and open account, as payment methods, or an export credit insurance, an insurance provided by ECA. Both importer and exporter may facilitate from trade finance.

Trade Credit: Trade credit is credit extension between parties that monitored in balance sheet at account receivables or payables regarding who is the credit seller or buyer (Hwang & Im, 2012: 3). It is specifically used for open account and advance payment method. Open account is the extending credit to the importer by exporter, which provides payment term to the importer. Yet, advance payment is vice versa of open account that importer extend credit to the exporter by paying cash initially.

Trade Loan: It is the cash given by bank to its customer for a period of time, regardless of it is an importer or exporter. If it is not related with the trade process, it is not included in trade finance.

For further details, please see (Rhee, 1989).

APPENDIX III

Categorization of International Institutions

Categorization of International Financial Institutions (IFIs), International Organizations (IOs), Multilateral Development Banks (MDBs), Regional Development Banks (RDBs) or Development Finance Institutions[1] (DFIs) is a very complicated issue. When someone can see the World Trade Organization (WTO) as an IFI[2], it can also be categorized as International Organization[3]. While the Asian Development Bank (ADB) or European Bank for Reconstruction and Development (EBRD) can be categorized in DFI[4], they can also be called as Regional Development Bank in Lessambo's work (2015) or Multilateral Development Bank in Perry's work (2011). Furthermore, more commonly and accurately they can be called as Regional MDBs as in the Eric Neumayer's work (2003).

The term IFIs include MDBs as Hufbauer & Stephenson's usage (2009: 13) and MDBs include RDBs. In this manner, IFIs are establishments to provide financing and consultancy, to ensure financial and economic stability and collaboration between its members with the aim of their developments (Bhargava, 2006: 393). MDBs have similar functions with IFIs according to this definition. Therefore, IFIs and MDBs can be subsituted each other such as in Wang & Tadesse's (2005: 7), Brodie's (2010) and Malaket's (2015: 8) works.

[1] For IFC's categorization, please see: https://www.ifc.org/wps/wcm/connect/region__ext_content/ifc_external_corporate_site/western+europe/priorities/internationalfinanceinstitutions

[2] Please see "Report of the International Financial Institution Advisory Commission" or related comments or related speech: https://www.ifo.de/DocDL/Forum400-focus2.pdf, https://www.govinfo.gov/content/pkg/CHRG-106shrg66721/html/CHRG-106shrg66721.htm

[3] Please see: https://www.imf.org/en/About/Factsheets/The-IMF-and-the-World-Trade-Organization

[4] Please see:al https://www.edfi.eu/about-dfis/what-is-a-dfi/

APPENDIX IV

Categorization of International Institutions

Below table shows the syndication loan participation of international banks before and after 2008 crisis.

		Share of cross-border in total lending (percent)		Volume of cross-border lending (USD m)		Number of cross-border loans		Market share (ppts.)
Country	Name	Pre-crisis	Post-Lehman	Pre-crisis	Post-Lehman	Pre-crisis	Post-Lehman	Pre-crisis
Australia	National Australia Bank	55	31	21,082	2,507	266	51	0.44
Australia	ANZ	36	43	15,114	5,388	231	80	0.26
Australia	Commonwealth Bank of Australia	33	23	10,507	2,437	141	32	0.25
Australia	Westpac	30	17	10,323	1,729	125	35	0.23
Austria	RZB	94	97	18,504	4,196	783	55	0.38
Austria	Erste Group Bank AG	96	96	9,754	927	482	21	0.26
Austria	Hypo Alpe-Adria-Bank	99	100	1,089	133	48	2	0.05
Austria	Oesterreichische Volksbanken AG	93	90	1,861	198	64	6	0.03
Austria	BAWAGPSK	88	100	1,19	187	89	3	0.03
Bahrain	Gulf International Bank BSC	97	100	5,924	75	111	1	0.14
Bahrain	Arab Banking Corp - BSC	94	100	4,787	302	100	8	0.09
Belgium	Fortis	85	80	77,901	8,732	1,269	149	1.53
Belgium	KBC	87	85	31,153	3,786	646	62	0.62
Belgium	Dexia	91	93	18,83	4,042	180	53	0.57
Canada	Scotia Capital	72	68	65,979	17,694	805	200	1.26
Canada	BMO Capital Markets	65	51	33,341	7,926	718	152	0.74
Canada	RBC Capital Markets	63	55	38,825	9,26	376	110	0.67
Canada	TD Securities Inc	51	56	18,785	8,225	312	138	0.36
Canada	CIBC World Markets	44	9	13,538	615	166	19	0.25
China	Bank of China Ltd	87	73	21,422	8,63	505	68	0.48
China	Industrial & Commercial Bank of China	89	52	6,197	2,201	225	42	0.15
China	Bank of Communications Co Ltd	88	32	3,329	512	102	18	0.09
China	China Construction Bank Corp	72	33	3,577	723	159	20	0.08
China	China Merchants Securities Co Ltd	90	33	3,646	431	59	16	0.06
China	Agricultural Bank of China	71	9	1,574	137	69	6	0.03
China	CITIC Group	68	52	1,187	578	78	14	0.02
Denmark	Danske Bank	86	78	25,299	5,072	406	39	0.65
Egypt	National Bank of Egypt	75	100	1,306	174	126	2	0.04
France	BNP Paribas	78	85	213,787	45,45	2,359	474	5.10
France	Calyon	69	76	136,839	28,928	1,681	358	2.86

France	SG Corporate & Investment Banking	73	82	112,182	25,394	1,341	293	2.62
France	Natixis	55	70	50,563	10,147	960	168	1.22
France	Banque Federative du Credit Mutuel	46	68	12,209	5,637	269	52	0.38
France	CASDEN Banque Populaire	40	16	2,415	94	64	4	0.12
Germany	Deutsche Bank	91	91	252,748	36,46	1,464	290	5.44
Germany	Commerzbank Group	71	72	125,951	16,476	1,792	152	3.13
Germany	DZ Bank	79	59	21,911	4,762	478	59	0.50
Germany	NordLB	774	67	9,852	2,028	310	32	0.17
Germany	WGZ	60	7	1,333	20	146	2	0.03
Greece	Alpha Bank	62	100	2,405	23	185	1	0.07
Greece	National Bank of Greece	64	96	1,919	496	178	21	0.03
Hong Kong	Bank of East Asia	64	73	2,104	614	131	22	0.05
Hong Kong	Iyo Finance (Hong Kong) Ltd	100	100	1,044	513	197	55	0.03
India	SBI Capital Markets Ltd	60	11	3,016	1,475	190	27	0.06
India	ICICI Bank	69	67	1,954	562	91	7	0.04
Ireland	Bank of Ireland	91	94	25,197	3,848	486	62	0.54
Ireland	Allied Irish Banks plc	92	95	25,778	2,454	561	51	0.53
Israel	Bank Hapoalim BM	100	100	3,49	48	149	2	0.09
Israel	Bank Leumi Le-Israel BM	100	100	2,191	329	63	13	0.06
Israel	Israel Discount Bank Ltd	100	100	1,338	403	69	13	0.04
Italy	UniCredit Group	83	87	86,313	11,476	1,582	143	1.78
Italy	Intesa Sanpaolo	66	74	41,266	10,448	763	102	0.93
Italy	Monte dei Paschi	70	15	8,112	419	208	13	0.11
Italy	Gruppo Banco Popolare di Verona e Novara	51	1	3,18	16	117	1	0.05
Japan	Mitsubishi UFJ Financial Group	67	38	174,833	39,457	2,243	544	3.44
Japan	Mizuho	52	21	100,243	14,541	1,557	167	2.33
Japan	Sumitomo Mitsui Financial Group, Inc	45	19	78,368	15,66	1,364	211	1.54
Japan	Nomura	100	53	24,087	272	113	6	0.58
Japan	Norinchukin Bank Ltd	22	5	3,012	389	64	10	0.05
Jordan	Arab Bank Group	100	100	7,361	731	150	11	0.16
Luxembourg	BCEE	86	17	1,75	25	86	1	0.03
Macao	Tai Fung Bank Ltd	100	100	2,694	175	48	3	0.08
Malaysia	Maybank Investment Bank Bhd	93	83	3,07	536	156	17	0.08
Malaysia	CIMB Group	45	62	1,024	266	89	6	0.02
Netherlands	ING	86	84	98,876	15,82	1,418	204	1.99
Netherlands	Rabobank	78	75	33,342	6,723	659	132	0.73
Netherlands	NIBC Bank	63	43	3,693	481	83	12	0.09
Norway	DnB NOR Bank ASA	63	57	24,295	2,666	308	41	0.56
Oman	Bank Muscat SAOG	64	100	958	11	76	1	0.02
Portugal	Caixa Geral de Depositos SA - CGD	95	57	7,667	1,928	185	25	0.21
Portugal	Banco Espirito Santo de Investimento	94	57	5,686	1,352	117	29	0.17
Portugal	Banco BPI	93	22	2,347	253	60	5	0.11

Qatar	Qatar National Bank	56	15	1,094	45	56	3	0.04
Qatar	Commercial Bank of Qatar QSC	47	0	661	0	51	0	0.02
Qatar	Doha Bank QSC	65	19	568	36	55	3	0.01
Singapore	DBS	85	68	14,064	3,195	398	93	0.29
Singapore	UOB	86	48	9,678	1,137	282	33	0.24
Singapore	Oversea-Chinese Banking Corp Ltd	69	46	4,189	1,106	182	32	0.15
South Africa	Standard Bank	88	100	4,993	1,205	227	21	0.11
Spain	BBVA	79	77	55,402	18,017	781	217	1.50
Spain	Banco Santander SA	64	66	46,243	16,121	660	163	0.98
Spain	Caja Madrid	55	48	14,825	3,503	114	19	0.34
Sweden	Nordea Bank AB	84	88	40,912	7,206	451	75	1.09
Sweden	SEB	67	79	20,001	4,51	248	41	0.46
Sweden	Svenska Handelsbanken AB	76	91	17,383	3,389	163	33	0.39
Sweden	Swedbank Markets	51	53	3,722	626	105	8	0.10
Switzerland	Credit Suisse	97	93	167,344	23,598	1,083	155	3.59
Switzerland	UBS	97	87	106,681	18,008	854	160	2.31
Taiwan	irst Commercial Bank Co Ltd	72	63	4,731	1,363	183	24	0.13
Taiwan	Chang Hwa Commercial Bank Ltd	72	42	4,544	954	190	33	0.13
Taiwan	Mega International Commercial Bank	59	53	5,564	966	276	34	0.11
Taiwan	Bank of Taiwan	52	51	3	690	170	20	0.08
Taiwan	Hua Nan Commercial Bank Ltd	53	26	2,351	310	144	13	0.05
Taiwan	Cathay United Bank Co Ltd	28	14	1,051	116	83	10	0.04
Taiwan	Fubon Financial Holding Co Ltd	27	25	1,158	364	70	14	0.03
Taiwan	Taiwan Cooperative Bank	30	15	1,085	178	62	11	0.03
Taiwan	Shanghai Commercial & Savings Bank	47	3	1,184	11	81	2	0.02
Taiwan	Chinatrust Commercial Bank	23	47	1,098	661	65	24	0.01
Thailand	Bangkok Bank Ltd	86	31	1,024	68	94	8	0.03
Turkey	Turkiye Garanti Bankasi AS	100	100	1,123	29	103	2	0.02
UAE	Mashreqbank PSC	73	44	2,853	113	147	3	0.04
UAE	Emirates NBD PJSC	42	20	2,042	112	155	2	0.04
UK	RBS / ABN AMRO	77	79	360,862	44,01	2,93	445	8.33
UK	Barclays Capital	78	81	247,708	33,772	1,604	254	4.69
UK	HSBC	78	86	144,716	34,13	1,978	422	2.76
UK	Lloyds Banking Group	51	60	61,802	11,597	871	122	1.43
UK	Standard Chartered Bank	92	89	40,274	8,967	977	170	1.00
UK	NM Rothschild	88	100	2,188	7	60	1	0.03
US	Citi	48	36	234,311	30,775	1,646	195	4.85
US	JPMorgan	27	18	145,908	17,519	788	118	3.18
US	Goldman Sachs	52	24	76,4	6,302	204	21	1.47
US	Bank of America - Merrill Lynch	15	11	78,935	9,297	692	119	1.41
US	Morgan Stanley	49	22	58,251	4,113	210	35	1.12
US	GE Capital Markets Inc	24	28	18,074	3,043	275	30	0.47

US	Wells - Wachovia Securities	7	5	18,339	2,051	371	40	0.34
US	Bank of New York Mellon Corp	6	7	5,035	749	171	17	0.11
US	Comerica Bank	13	8	3,664	456	67	14	0.08
US	PNC Bank NA	37	22	25,992	3,763	764	120	0.05

Source: De Haas, Ralph and Van Horen, Neeltje, (2011), Running for the Exit: International Banks and Crisis Transmission, DNB Working Papers, Netherlands Central Bank, Research Department p. 38, 39, 40.