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THE TRADE FINANCE GAP: WHY CREDIT RISK MITIGANTS ARE NOT APPLIED

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To my parents, Vivi and Álvaro

To my students, past, present and future

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Credit Author and Use of GenAI Statements

For all chapters included in this dissertation, the author was responsible for conceptualisation, data curation, formal analysis, investigation, methodology, project administration, resources, validation, visualisation, writing the original draft, and review & editing. My PhD supervisor contributed to the conceptualisation by helping to shape the research ideas, questions and provided supervision through ongoing guidance and review of the written drafts.

During the preparation of this doctoral thesis, I used Grammarly for proofreading purposes and ChatGPT to reduce word count in the article, which is included in Appendix 3. After using these tools, I reviewed and edited the content as needed and took full responsibility for the content of the publication.

Abstract

Banks play a central role in enabling international trade by providing financing solutions that help exporters and importers manage cross-border payment risks. However, a persistent global trade finance gap continues to limit the ability of firms, particularly in emerging and developing economies, to access the funding necessary for trade. This gap is especially pronounced in transactions involving high credit and country risk. While credit risk mitigants (CRMs), such as export credit guarantees, private insurance policies, multilateral development bank programmes, and bank-to-bank risk-sharing mechanisms, exist to reduce these risks, they are not always used effectively by banks.

This doctoral thesis seeks to investigate why banks underutilise credit risk mitigants in trade finance and how this behaviour contributes to the trade finance gap. The research first develops a comprehensive analytical framework to conceptualise the nature, functions, and limitations of credit risk mitigation tools within international trade finance. Building on this foundation, the empirical component of the research employs a qualitative methodology, drawing on 38 in-depth, semi-structured interviews with senior trade finance professionals from banks across multiple geographies. The analysis reveals a complex interplay of internal and external barriers, which are grouped into three thematic groups: regulatory constraints (including capital requirements and compliance obligations), organisational constraints (such as internal procedures, IT limitations, and strategic misalignment), and individual-level constraints (including incentive structures, knowledge gaps, and behavioural biases).

The findings demonstrate that, despite the existence of technically suitable instruments, a combination of institutional, structural, and human factors leads banks to decline trade finance transactions that could otherwise be accepted with the use of CRMs. These insights have important implications for both policy and practice. On the one hand, they highlight the need for regulatory frameworks that recognise the full credit risk transfer value of mitigation tools;

on the other hand, they call for organisational change within banks to improve internal processes, training, and incentives.

This research makes an original contribution to the academic literature by identifying and systematising the reasons why CRMs remain underutilised, despite their proven effectiveness. The thesis concludes with a set of actionable recommendations for financial institutions, regulators, export credit agencies, development banks, insurers, and other stakeholders committed to reducing the trade finance gap.

Keywords: Trade finance; credit risk mitigants; export credit insurance; letters of credit; banking; international trade.

Resumen

Los bancos desempeñan un papel clave en el desarrollo del comercio internacional al ofrecer soluciones de financiación que ayudan a exportadores e importadores a mitigar los riesgos de pago transfronterizo. Sin embargo, persiste una brecha o gap global en la financiación del comercio que sigue limitando la capacidad de las empresas, especialmente en economías emergentes y en desarrollo, para acceder a los fondos necesarios para exportar e importar. Este gap, llamado trade finance gap, es especialmente pronunciado en operaciones con alto riesgo de crédito comercial y político. Aunque existen mecanismos de mitigación del riesgo de crédito, como el seguro oficial de crédito a la exportación, las pólizas de seguros privados, los programas de bancos multilaterales de desarrollo y los mecanismos participación de riesgos en el mercado interbancario, estos no siempre son utilizados de manera eficaz por los bancos.

Esta tesis doctoral tiene como objetivo investigar por qué los bancos infrautilizan los mecanismos de mitigación del riesgo de crédito en la financiación del comercio internacional y cómo este comportamiento contribuye a la persistencia del trade finance gap. En primer lugar, la investigación desarrolla un marco analítico para conceptualizar la naturaleza, funciones y limitaciones de los mitigantes de riesgo de crédito en el contexto del comercio internacional. Sobre esta base, el análisis empírico se apoya en una metodología cualitativa, basada en 38 entrevistas en profundidad, semi-estructuradas, realizadas a responsables de financiación de comercio exterior en bancos de diversas geografías. El análisis revela una compleja interacción de barreras internas y externas, agrupadas en tres grandes categorías temáticas: restricciones regulatorias (incluidos los requerimientos de capital y las obligaciones de cumplimiento), restricciones organizativas (como los procedimientos internos, limitaciones tecnológicas y desalineación estratégica), y barreras a nivel individual (incluidos los incentivos, las carencias de conocimiento y los sesgos conductuales).

Los resultados demuestran que, a pesar de la existencia de instrumentos técnicamente adecuados, una combinación de factores institucionales, estructurales y humanos lleva a los bancos a rechazar operaciones de comercio exterior que podrían aprobarse mediante el uso de mitigantes de riesgo de crédito. Estos resultados tienen implicaciones relevantes tanto para los responsables políticos como para la práctica profesional. Por un lado, evidencian la necesidad de marcos regulatorios que reconozcan el valor pleno de la transferencia de riesgo crediticio que ofrecen estos instrumentos; por otro, señalan la urgencia de cambios internos dentro de los bancos para mejorar los procesos, la formación y los sistemas de incentivos.

Esta tesis ofrece una contribución original a la literatura académica al identificar y sistematizar las razones por las cuales los instrumentos de mitigación de riesgo de crédito están infrautilizados a pesar de su eficacia demostrada. La tesis concluye con una serie de recomendaciones prácticas dirigidas a instituciones financieras, reguladores, agencias de crédito a la exportación, bancos de desarrollo, aseguradoras y otros actores comprometidos con la reducción del trade finance gap.

Palabras clave: Financiación del comercio internacional; mitigación del riesgo de crédito; seguro de crédito a la exportación; cartas de crédito; banca; comercio internacional.

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List of Acronyms

ADB	Asian Development Bank
AfDB	African Development Bank
AML	Anti-Money Laundering
BAFT	Bank Association of Foreign Trade
BIS	Bank of International Settlements
CIS	Commonwealth of Independent States
CPRI	Credit and Political Risk Insurance
CRMs	Credit Risk Mitigants
EBA	European Banking Association
EBRD	European Bank for Reconstruction and Development
ECA	Export Credit Agency
IACMP	International Association of Credit Portfolio Managers
ICC	International Chamber of Commerce
ICISA	International Credit Insurance and Surety Association
IDB	Inter-American Development Bank
IFC	International Finance Corporation
IMF	International Monetary Fund
IRU	Irrevocable Reimbursement Undertaking
ITFA	International Trade and Forfaiting Association
ITFC	International Islamic Trade Finance Corporation
KYC	Know Your Customer
LC	Letter of Credit
LSE	London School of Economics
MDB	Multilateral Development Bank
MRPA	Master Risk Participation Agreement
OECD	Organisation for Economic Cooperation and Development
RWA	Risk-Weighted Assets
SBLC	Standby Letters of Credit
SME	Small and Medium Enterprise
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TA	Thematic Analysis

TFFP	Trade Finance Facilitation Program
TFG	Trade Finance Global
TFP	Trade Finance Program
UCP	Uniform Customs and Practice for documentary credits
WTO	World Trade Organisation

Chapter 1
Introduction

1 Introduction

1.1 Research Topic, Context and Motivation for the Thesis

Global trade is crucial for the growth and development of any economy, with financial institutions playing a key role in facilitating international flows through trade finance. However, financing remains a significant obstacle to trade, and an existing gap persists in fulfilling the demand for trade finance transactions, predominantly in developing countries with high credit and country risk. Several studies have reported that a lack of trade finance is one of the primary reasons for the decline in global trade (Auboin, 2009; Chor & Manova, 2012; Haddad et al., 2010) and accounted for approximately 15%–20% of the sharp decline in trade during the 2008–2009 financial crisis (Starnes & Nana, 2020).

The term trade finance gap refers to the unmet demand for financing in cases where transactions agreed upon by exporters and importers cannot be completed due to a lack of financial support (Auboin & DiCaprio, 2017). According to the Asian Development Bank (ADB), the global trade finance gap reached approximately USD 2.5 trillion in 2022, equivalent to nearly 10% of global merchandise trade (Beck et al., 2023). This figure underscores the scale and urgency of the problem, especially given trade's potential to foster economic growth and development.

The motivation for this doctoral thesis stems from a concern about the persistence of the trade finance gap, an issue that has also drawn increasing attention from a wide range of international organisations and policy institutions. This concern arose from the need to contribute to a better understanding of the underlying causes of the gap and, by identifying these root causes, to explore practical and policy-relevant solutions for narrowing it.

To situate the research topic, it is important to begin by clarifying what trade finance means. Often described as a lubricant for trade (WTO & IFC, 2022),

trade finance refers to a set of financial instruments and products, primarily intermediated by commercial banks, that are directly linked to international trade transactions, whether exports or imports (BIS, 2014). These instruments are designed to mitigate the risks inherent in cross-border trade, such as payment delays, non-payment, and jurisdictional or operational differences between trading partners (Starnes & Nana, 2020). They enable companies to manage international payments, secure working capital, and share or transfer risk, making the movement of goods across borders possible, especially in emerging markets where such risks are magnified (Starnes & Nana, 2020).

Finance is a key element for sustainable development (Ziolo et al., 2019), and trade finance is critical to the global economy. It is estimated that around 80% of global merchandise trade depends on some form of trade finance support (Beck et al., 2023). The importance of trade finance is even greater in emerging markets and developing economies where geographical distances, legal uncertainties, and unfamiliar counterparties create strong demand for risk-mitigating mechanisms (Starnes & Nana, 2020). Thanks to trade finance, firms can expand their business operations into higher-risk countries, supporting broader economic integration and development (Auboin & DiCaprio, 2017). As an asset class, trade finance is characterised by its short tenor, self-liquidating nature, and cross-border component (Starnes & Nana, 2020).

Academic interest in trade finance has grown significantly since the 2008–09 financial crisis (Auboin, 2015; BIS, 2014) and, more recently, in response to the COVID-19 pandemic, which renewed the urgency of studying the resilience of trade finance systems. Supply chain disruptions and tightening financial conditions during the pandemic once again exposed major vulnerabilities, particularly in countries that already faced structural gaps in access to trade credit (Auboin, 2021).

Despite its importance, trade finance remains an area under-researched. One of the key barriers is the lack of comprehensive, reliable data. There is no single

source that fully captures the size, composition, or structure of trade finance markets (Auboin & DiCaprio, 2017). Most empirical work has relied on crisis-specific surveys (IMF & BAFT, 2009; Sturgess, 2019) or on data from individual banks, firms or specific countries (Ahn & Sarmiento, 2019; Antras & Foley, 2015; Chor & Manova, 2012; Demir et al., 2017). The Berne Union database, focused mainly on export credit insurance, remains the only consistent data source for research (Auboin, 2009; van Wersch, L., 2019). This persistent data scarcity has constrained the development of more granular, institution-focused academic research (BIS, 2014).

Previous studies have pointed to a combination of structural and operational factors as key contributors to the persistent trade finance gap. At the firm level, common barriers include low creditworthiness, insufficient collateral, and limited financial literacy. At the bank level, rejections are driven by internal credit policies, compliance burdens, capital constraints, and reduced risk appetite (Auboin & DiCaprio, 2017; DiCaprio & Yao, 2017). Compliance with anti-money laundering (AML) and know-your-customer (KYC) regulations remains one of the most frequently cited obstacles, particularly in high-risk jurisdictions (Beck et al., 2023). Country-level risks, such as political or economic instability, and the decline of correspondent banking relationships further limit access to trade finance in emerging markets (Auboin & DiCaprio, 2017; Beck et al., 2023).

Within trade finance, the letter of credit (LC) remains one of the most common and traditional instruments, especially in emerging markets (Ahn & Sarmiento, 2019; Schmidt-Eisenlohr, 2013). However, confirming banks often reject LCs due to low credit ratings of the issuing bank or country risk, risks that could be mitigated through credit risk mitigants (CRMs) such as export credit guarantees, insurance or risk-sharing mechanisms (DiCaprio & Yao, 2017). According to the ADB's most recent survey, 54% of respondent banks cited low credit ratings as a key reason for declining trade finance requests (Beck et

al., 2023). These rejections contribute directly to the persistence of the trade finance gap and highlight the potential role of CRMs in reducing it.

While CRMs are available through Export Credit Agencies (ECAs), private insurers, Multilateral Development Banks (MDBs), and the interbank market, little is known about how banks use these instruments in practice (Asmundson et al., 2011; Cavoli et al., 2022). This lack of clarity is partly due to the challenge of accessing confidential, institution-level data (Auboin, 2015, 2021; DiCaprio & Yao, 2017). Much of the existing literature focuses on macroeconomic or regulatory factors, such as the impact of CRM usage on non-aggregate trade flows, while overlooking the internal decision-making processes within banks. As a result, there is limited understanding of how and why banks choose whether to apply or not to use CRMs in individual transactions, especially in high-risk markets where they are most needed. This doctoral thesis aims to address this research gap by exploring the barriers that prevent banks from applying credit risk mitigants in trade finance transactions.

1.2 Research Questions and Objectives

As noted above, the initial motivation for this doctoral thesis originated from the persistent global trade finance gap, particularly in emerging markets where access to finance remains limited despite the existence of instruments designed to mitigate risk. The preliminary research question was: How can the trade finance gap be reduced?

As the investigation progressed and the literature on trade finance was explored, it became evident that one of the primary causes of unmet trade finance demand is credit risk, an issue that can be addressed using CRMs such as export credit guarantees, insurance, or bank risk-sharing agreements. This led to a more specific question: Are banks using CRMs effectively in trade finance transactions?

This line of inquiry was shaped both by my professional background, having worked for over two decades in the field of trade finance, and by preliminary exploratory and field work. This initial work included a review of the relevant academic and policy literature, attendance at industry conferences, and informal discussions with trade finance professionals. These early findings suggested that many banks do not apply CRMs as effectively as they could, despite their availability and potential to facilitate transactions that would otherwise be declined.

As a result, the central research question was refined to explore the underutilisation of CRMs in trade finance. Consequently, the central research question of this thesis became: Why do banks not consistently apply credit risk mitigants in trade finance transactions?

To explore this, the study addresses the following questions:

RQ1: What barriers do banks face when attempting to apply credit risk mitigants in trade finance transactions?

RQ2: How do these barriers influence banks' decisions to approve or reject trade finance applications?

The original scope of this thesis was initially centred on the regulatory and accounting treatment of CRMs. However, interviews with trade finance practitioners revealed a broader range of barriers, many of which are underexplored in the existing trade finance academic literature. These insights shifted the focus of the research towards a more comprehensive understanding of the organisational, behavioural and institutional factors that shape CRM usage in practice.

By addressing the research questions outlined above, the main objective of this thesis is to identify and analyse the constraints that prevent banks from fully

utilising CRMs in trade finance transactions. The study proposes a conceptual framework that captures the internal and external factors influencing decision-making processes within financial institutions. Understanding these barriers is essential for improving both policy frameworks and banking practices, with the ultimate goal of reducing the number of rejected trade finance transactions and contributing to the narrowing of the global trade finance gap.

The findings suggest that implementing improved policies and operational procedures for credit risk mitigation could significantly increase CRM usage and reduce rejection rates. In this sense, the thesis offers practical insights for both practitioners and policymakers seeking to strengthen the role of CRMs in expanding access to trade finance, particularly in high-risk markets where it is needed most, thereby contributing to narrowing the global trade finance gap.

1.3 Methodological Approach

To address the research questions effectively, this doctoral thesis adopts an exploratory qualitative methodology grounded in an inductive approach. This research design was chosen for its suitability in investigating complex, underexplored topics where empirical data are scarce and the theoretical landscape is not well established (Flick, 2018; Saunders et al., 2007). Trade finance, and particularly the decision-making processes of banks regarding the application of credit risk mitigants (CRMs), represents such a context. In this setting, qualitative methods are not only appropriate but necessary to uncover nuanced insights and motivations that structured surveys or quantitative approaches would likely fail to capture.

Qualitative research enables a deeper understanding of how individuals experience and interpret specific phenomena. In this study, the use of in-depth semi-structured interviews proved essential for exploring the internal reasoning behind bankers' decisions to apply, or refrain from applying, CRMs in trade finance transactions. The nature of the information shared, often sensitive and

based on personal judgement, would not have surfaced through written questionnaires or standardised instruments. Interviews created a confidential and interactive space, allowing participants to reflect openly on their practices, institutional constraints, and professional experiences (Lune & Berg, 2017). This method thus yielded insights that existing large-scale surveys have not captured, revealing new barriers and themes absent in previous research.

To the best of my knowledge, this is the first study to use a qualitative approach to explore the lived experiences of trade finance bankers when evaluating CRMs for individual transactions. While previous studies have examined factors contributing to the rejection of trade finance requests, they have not focused specifically on the application, or omission, of CRMs in this context. This study presents unique and valuable findings that could only be obtained through qualitative interviews, with participants sharing information that is too sensitive to disclose in surveys or written documents. As such, this research makes a novel contribution to the field of trade finance.

Furthermore, qualitative research remains relatively rare in the field of finance, which continues to be dominated by quantitative models and statistical analyses. However, for certain research questions, especially those involving organisational culture, behavioural dynamics, and decision-making processes, qualitative analysis is not only valid but indispensable (Creswell & Poth, 2016). This thesis demonstrates the added value of such an approach in capturing dimensions of banks' behaviour that are otherwise overlooked in the finance literature.

Thematic analysis was selected as the method of data analysis for its flexibility and suitability in identifying patterns of meaning across qualitative datasets (Braun, V. & Clarke, 2006, 2021). This approach enabled the researcher to systematically code the data and develop themes that directly respond to the research questions. Unlike approaches focused on theory-building, thematic analysis is particularly well-suited for capturing and interpreting the

experiences and perspectives of participants without assuming a pre-existing theoretical structure. In addition to interviews, the study triangulated data using observations from industry conferences and practitioner events, further enhancing the reliability and contextual grounding of the findings (Saunders et al., 2007).

Ultimately, the choice of a qualitative, inductive approach not only aligns with the exploratory nature of this research but also proves to be the most effective strategy for producing a rich and grounded understanding of the constraints banks face in using credit risk mitigants in trade finance. The results of this thesis, including the barriers identified and the framework proposed, could not have been derived through alternative methods. The voices and experiences of trade finance practitioners were essential in illuminating the mechanisms behind CRM underutilisation and in shaping recommendations that are relevant and applicable to both academic and professional audiences.

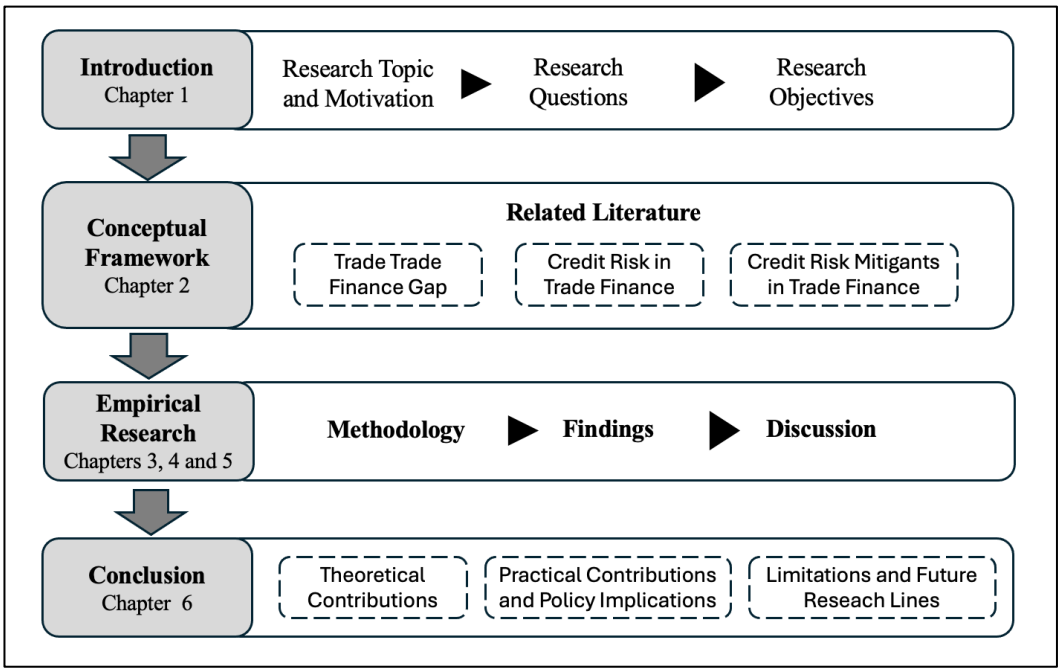
1.4 Thesis Structure

In this first introductory chapter, the rationale behind the research has been established, along with its main research questions and objectives. The chapter provides the foundation for the study by outlining the motivations that inspired it, particularly the persistence of the global trade finance gap and the paradox of underutilised CRMs, even though such instruments are widely recognised and available in theory and practice. Following this introductory overview, the present section outlines the structure of the doctoral thesis, which is also summarised visually in Figure 1 to guide the reader through its overall organisation and logic.

Building upon this introduction, the second chapter constructs the conceptual framework for the study. It explores the nature and causes of the global trade finance gap and reviews the instruments designed to mitigate credit risk in trade finance transactions. These include export credit guarantees, credit and political

risk insurance, letters of credit, and the mechanisms provided by public, private, and multilateral actors. Each section introduces a specific tool or market participant, such as Export Credit Agencies (ECAs), private insurers, multilateral development banks (MDBs), and the interbank risk-sharing market. In addition, the chapter considers less commonly used mitigants, offering a comprehensive view of the landscape in which banks operate. This conceptual framework is key for understanding how these instruments are intended to function and the potential they hold in addressing the trade finance gap.

Figure 1: *Thesis Structure*



Source: Developed by the author

Having defined the analytical framework, the thesis then moves to the empirical study, beginning with the research methodology. Chapter 3 outlines the qualitative design of the study, detailing the rationale for the chosen approach and describing the sampling strategy that led to the selection of 38 senior trade finance professionals from various geographies and institutions. The chapter describes the methods used for data collection, primarily semi-structured interviews, and explains how these were complemented by field observations.

It also presents the multi-stage process through which thematic analysis was conducted, including the phases of familiarisation with the data, coding, theme generation, refinement, and final writing. The final section addresses the trustworthiness of the study, examining issues such as credibility, transferability, dependability, and confirmability to demonstrate the rigour of the research process.

With the methodology established, the fourth chapter presents the empirical findings of the study. This chapter identifies a complex set of factors that hinder the effective use of credit risk mitigants by banks. These barriers are organised into three thematic categories: regulatory, organisational, and individual. These thematic areas capture the multi-layered nature of the problem, ranging from external compliance and capital requirements to internal processes, institutional priorities, and the perceptions and behaviours of individual bankers. Within each of these categories, the chapter explores specific themes that emerged during the interviews. Each theme is examined in detail, supported by extensive quotes from the participants that illustrate and validate the insights derived from the data.

These findings are further analysed and interpreted in Chapter 5, which discusses their implications in relation to existing academic literature and market practices. This chapter deepens the understanding of each category of constraint, regulatory, organisational, and individual, by drawing connections between the empirical evidence and broader debates in banking and trade finance. It also addresses the practical implications for financial institutions, emphasising the need for reforms at multiple levels. In doing so, the chapter bridges theory and practice, offering insights that are relevant to both scholars and practitioners.

Finally, the thesis concludes in Chapter 6 by summarising its key theoretical and practical contributions. It reflects on the study's limitations and proposes several avenues for future research.

1.5 Publication and Outreach

As part of the dissemination and impact strategy of this doctoral research, several outreach activities have been carried out throughout the project to maximise its academic, professional, and policy relevance.

A major milestone was the publication of an article in Global Policy (JCR Q2) in April 2025, based on the empirical study. The article, titled *"*Trade Finance Gap: Why Credit Risk Mitigants Are Not Applied", identifies the barriers that prevent banks from making wider use of credit risk mitigants and contributes to the academic and policy debate on closing the global trade finance gap.

Beyond the academic sphere, the findings of this research have also reached professional audiences. Trade Treasury Payments (TTP), a leading independent media publication specialising in trade, published an article based on the results of this study in June 2025, highlighting its relevance for practitioners in the banking sector.

The initial ideas that shaped this doctoral thesis were developed during the research seminar *"*Empirics of Management: An Academic Excellence Program" at the London School of Economics (LSE) in September 2019. I was selected to participate following a highly competitive process and with the support of a scholarship awarded by the Rafael del Pino Foundation. Being chosen for this programme was a significant milestone, as it brought together a select group of researchers to explore innovative methodological approaches in management and development research.

This seminar planted the seed for a subsequent research stay at LSE, from November 2019 to April 2020, hosted by Professor Rocco Macchiavello. During this period, I had the privilege of engaging in regular discussions with Professor Macchiavello and other leading scholars in the fields of international trade and development economics. Their insights proved invaluable in refining

both the conceptual foundations and empirical design of my research. I also benefited from interactions with a dynamic and diverse doctoral community, whose perspectives helped shape my research questions and analytical approach.

The LSE, widely recognised as one of the world's most prestigious institutions for social science research, offered an intellectually stimulating and globally connected environment that played a decisive role in the development of this thesis. This experience was not only academically transformative but also a deeply enriching international opportunity that laid the foundation for much of the work presented in the following chapters.

A first working paper titled "Trade finance credit risk mitigants: could the trade finance gap be reduced?" was presented at the AJICEDE Annual Conference in December 2021, where it received the Best Paper in Finance award. Subsequent versions of the project were presented and discussed in a variety of academic settings. The ASEPUC-PRICIT Doctoral Workshop (April 2023) offered a constructive environment for dialogue and critique among doctoral students and faculty from Spanish universities. Later, at the International Business Center of Excellence Seminar at KEDGE Business School (November 2023), I had the valuable opportunity to receive detailed feedback from international scholars with expertise in international trade and management. Most recently, at the XIII Iberoamerican Academy of Management Annual Conference (May 2025), an updated version of the paper, titled "Insight into the trade finance gap: why credit risk mitigants are not applied", was presented. This event offered a platform to explore the broader implications of the research and to gather insightful suggestions for future projects building on the findings of this thesis.

Chapter 2
Trade Finance Gap and Credit Risk Mitigants
Conceptual Framework

2 Trade Finance Gap and Credit Risk Mitigants Conceptual Framework

This chapter develops a conceptual framework for understanding the role of credit risk mitigants (CRMs) in addressing the global trade finance gap, along with a review of the relevant literature. It begins by outlining the nature and underlying causes of the trade finance gap, which remains a persistent challenge, particularly in emerging and developing markets. The chapter then explores the concept of credit risk mitigation in trade finance, the instruments most used, and the different types of providers responsible for delivering these solutions.

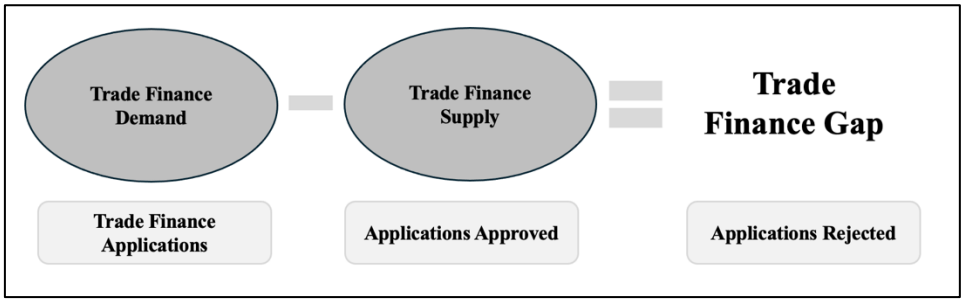
Specifically, the chapter examines the key CRMs identified in the academic and policy literature, including export credit guarantees, private insurance policies, multilateral development bank programmes, and bank-to-bank risk-sharing mechanisms. In addition, it introduces a set of less frequently used tools such as cash collateral, irrevocable reimbursement undertakings (IRUs), double confirmations, structured funds, securitisation structures, and club deals. The analysis also considers the various types of providers that deliver these instruments, namely public export credit agencies (ECAs), private credit insurers, multilateral development banks (MDBs), and financial institutions participating in the bank-to-bank market.

By clarifying the mechanisms through which credit risk mitigants function and the ways in which they enhance access to trade finance, the chapter aims to offer a structured foundation for analysing their application and overall effectiveness. This framework serves as the conceptual backbone of the thesis and guides the subsequent empirical investigation into the barriers that prevent financial institutions from making broader and more efficient use of credit risk mitigation in international trade.

2.1 The Trade Finance Gap

The trade finance gap refers to the shortfall between the amount of trade finance requested by firms and the amount provided by financial institutions. It represents the unmet demand for financial products, such as letters of credit (LCs), guarantees, and other instruments that support international trade transactions (Auboin, 2021). The Asian Development Bank (ADB) defines this gap as the value of trade finance applications submitted by importers and exporters that are rejected by banks. Globally, SMEs represent the predominant share of the business landscape when measured by number of enterprises (Toro Díaz & Palomo Zurdo, 2014) and account for a significant volume of cross-border transactions (Lee et al., 2020). However, they are more severely impacted by trade finance rejections than larger firms. In 2022, although they accounted for just 38% of the applications submitted to banks, they made up 45% of the total rejected requests, highlighting a disproportionate burden on smaller businesses (Beck et al., 2023). As a result, the trade finance gap not only constrains trade activity, especially in developing economies, but also hinders broader economic development and limits SME integration into global value chains.

Figure 2: *The Trade Finance Gap*



Source: Elaborated by the author

Despite its significant impact on global trade, the trade finance gap remains difficult to quantify with precision. One of the main reasons for this is the lack of comprehensive, standardised, and regularly collected data on trade finance

transactions. This data gap exists even in advanced economies and is even more pronounced in developing countries (Auboin, 2015; van Wersch, L., 2019). Trade finance instruments often fall into several financial categories at once, which makes it difficult to include them clearly in current economic statistics. As a result, information on trade finance is usually gathered through periodic surveys rather than derived from hard, transactional datasets.

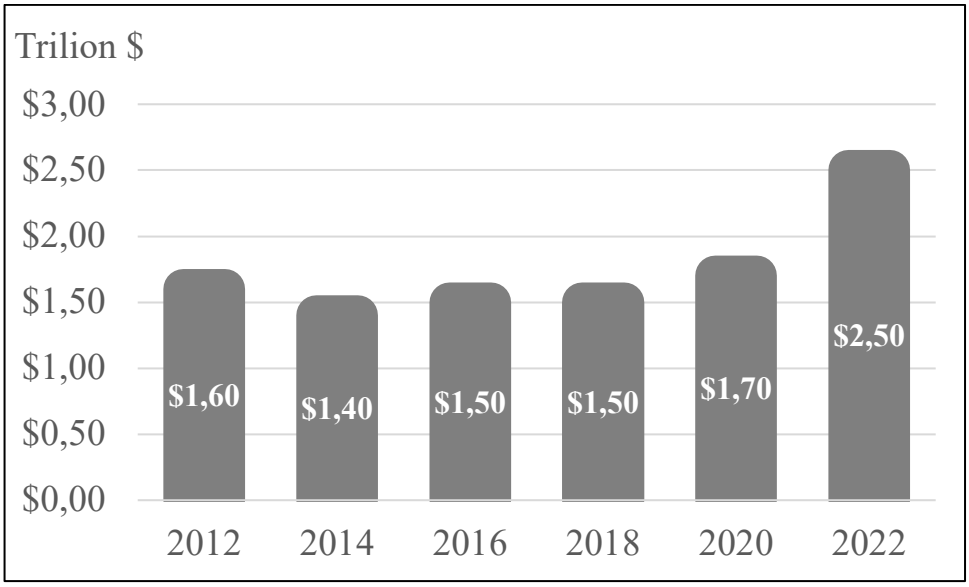
Both van Wersch (2018) and the BIS (2014) have highlighted that the absence of disaggregated, high-frequency data has long limited efforts to assess the size, structure, and behaviour of the trade finance market. Without clear data on trade finance volumes, it becomes particularly difficult to measure the trade finance gap itself.

To address the lack of data, the ADB launched its Trade Finance Gap Surveys in 2012. These surveys collect responses from banks, firms, and export credit agencies worldwide, capturing insights from both the supply and demand sides of trade finance. They provide a combination of qualitative perspectives and estimated quantitative data, making them a vital tool for tracking the evolution of the trade finance gap and identifying the reasons behind trade finance rejections. Banks are asked about the challenges limiting their ability to provide trade finance, while firms report on their experiences with applying for and being denied financing. The survey has become a widely recognised resource for understanding the persistent imbalances in global trade finance (Auboin, 2021; DiCaprio & Yao, 2017).

The trade finance gap is calculated by analysing the volume of trade finance requests that banks declined or chose not to support. This estimate is derived from survey responses in which banks report the approximate value, in US dollars, of trade finance applications received and subsequently rejected during specific years (ADB, 2022). In this context, the trade finance gap reflects the portion of trade activity that cannot proceed due to financial institutions' limited

capacity or willingness to fulfil the demand for trade finance, thereby leaving exporters and importers without the necessary funding.

Figure 3: *Trade Finance Gap Evolution*



Source: Developed by the author based on DiCaprio et al. (2014); DiCaprio et al. (2015); DiCaprio et al. (2016); DiCaprio et al. (2017); Kim et al. (2019); and Kim et al. (2021).

Estimates of the global trade finance gap have fluctuated over the years but have remained persistently high. Figure 3 illustrates the evolution of the global trade finance gap from 2012 to 2022. The data reveal notable variations over the decade. In 2012, the gap was estimated at $1.6 trillion, but it declined significantly to $1.4 trillion in 2014. In subsequent years, the gap stabilised, remaining around $1.5 trillion in both 2016 and 2018. A modest increase is observed in 2020, reaching $1.7 trillion, likely reflecting the initial effects of the COVID-19 pandemic on access to trade finance.

By 2022, the global trade finance gap had risen sharply to $2.5 trillion, representing a 47% increase from 2020. This significant surge can be attributed to the economic disruptions triggered by the pandemic, which led to a higher rate of rejected trade finance applications (Beck et al., 2023). In addition,

ongoing structural challenges, such as macroeconomic volatility, geopolitical tensions, and the repercussions of the Russian invasion of Ukraine, further contributed to the widening of the gap.

The trade finance gap does not affect all countries and types of firms equally. The largest unmet demand is concentrated in developing regions where access to international credit is more restricted as political risk has country-level effects on firms (Jiménez & Bjorvatn, 2018) and impacts bank lending on capital (Janbaz et al., 2022). Firms in low-income countries, especially SMEs, are more likely to face rejection. This is consistent with evidence showing that firms with higher risk levels tend to have lower debt ratios, which confirms their difficulties in accessing external finance (Jorge & Armada, 2001). SMEs represent a particularly vulnerable segment, not due to a lack of trade capacity or competitiveness, but because of their limited access to financing tools and institutional support (Cavoli et al., 2022). For SMEs in developing economies, the potential loss in trade revenues due to trade finance difficulties can reach up to 50% (van Wersch, L., 2019). The strength, or absence, of relationships between actors in the trade finance ecosystem, including banks, governments, and firms, also varies across regions, influencing the level of financial exclusion and market access (Cavoli et al., 2022).

Table 1: *Trade Finance Applications and Rejections by Regions (in 2016)*

Region	Applications	Rejections
Asia and Pacific	46%	39%
Americas	18%	23%
Europe	19%	18%
Middle East and Africa	13%	14%
Russia and CIS	4%	6%

Source: Developed by the author based on Di Caprio et al, 2017

Table 1 presents a regional breakdown of trade finance applications and their respective rejection rates, highlighting significant disparities in access to trade

finance across the globe. Asia and the Pacific play a central role in the global trade finance landscape, submitting the highest share of trade finance applications worldwide, 46% in the latest data, highlighting its prominence in international trade flows. However, the region's heavy reliance on bank-intermediated financing leaves firms particularly exposed to funding challenges. This vulnerability is reflected in a disproportionately high rejection rate of 39%, signalling persistent difficulties in accessing the financial instruments necessary to support cross-border trade (ADB, 2022).

In contrast, Europe and the Americas each accounted for 18–19% of applications, with rejection rates of 18% and 23%, respectively. The Americas' relatively higher rejection rate suggests that firms in the region may face more stringent credit evaluations or higher perceived risks by lenders compared to their European counterparts.

The Middle East and Africa represented 13% of applications and experienced a 14% rejection rate, indicating a near-proportional outcome between demand and approval. This may suggest either relatively effective credit mechanisms or limited appetite for trade finance that matches available supply.

Russia and the Commonwealth of Independent States (CIS) submitted only 4% of total applications but faced a 6% rejection rate, which, while numerically small, indicates above-average difficulty in obtaining financing relative to their level of participation.

The African Development Bank (AfDB) also conducts surveys and research on trade finance activities in Africa, including the volume of declined transactions. Based on these studies, the estimated unmet demand for bank-intermediated trade finance in the region was around USD 120 billion in 2011 and USD 110 billion in 2012. Since approval rates tend to be higher in banks with larger total assets, it is likely that this financing shortfall is even more pronounced in the less developed areas of the continent (Gajigo et al., 2014).

In a trade finance transaction, the risk of rejection can arise at three key levels: the firm, the bank, and the country. At the firm level, the creditworthiness of the importer is crucial, as the issuing bank must pay the confirming bank before being reimbursed. At the bank level, confirming banks evaluate the risk of default by the issuing bank to avoid losses. Finally, country-level factors such as regulatory conditions, market volatility, and economic instability can also influence a bank's decision. Ultimately, rejections are driven by concerns over the buyer's credit risk, the reliability of the counterparty bank, and the overall risk environment of the country involved (DiCaprio & Yao, 2017).

The causes of trade finance rejections are multifaceted, encompassing factors at the firm, bank, and country levels. At the firm level, rejections often stem from a lack of creditworthiness, insufficient collateral, poor documentation, or limited financial literacy. At the bank level, decisions are influenced by internal credit policies, risk appetite, compliance burdens, and capital constraints. Banks also withdraw from markets they perceive as high-risk due to regulatory complexities, which reduces the availability of correspondent banking relationships, a key channel for delivering trade finance (Auboin & DiCaprio, 2017; DiCaprio & Yao, 2017).

In all the Trade Finance Gap Surveys conducted by the ADB since 2012, the main reasons cited by banks for rejecting trade finance applications have remained consistent over time. The most frequently reported barriers include compliance with anti-money laundering (AML) and know-your-customer (KYC) regulations, which impose significant operational and legal burdens, particularly when dealing with clients in high-risk or less transparent jurisdictions. Regulatory capital requirements also play a central role, as banks must allocate capital based on the perceived risk of a transaction. Given that trade finance often involves relatively low profit margins and operational complexity, these regulatory obligations can discourage banks from approving transactions, especially in higher-risk markets. Finally, both counterparty bank risk and country risk are critical factors in rejection decisions. Banks are often

reluctant to take exposure to issuing banks located in politically or economically unstable countries (ADB, 2022).

Having into consideration a specific region, one of the reasons why African banks may be unable to issue letters of credit is the limited credit lines that confirming banks allocate to them. Typically, the size of these credit limits is directly related to the economic size of the country but inversely related to its fragility and risk profile. As a result, many confirming banks based outside the continent often demand cash collateral from African banks to proceed with letter of credit confirmations once credit limits are reached, even though trade finance transactions are generally secured and self-liquidating in nature (Gajigo et al., 2014).

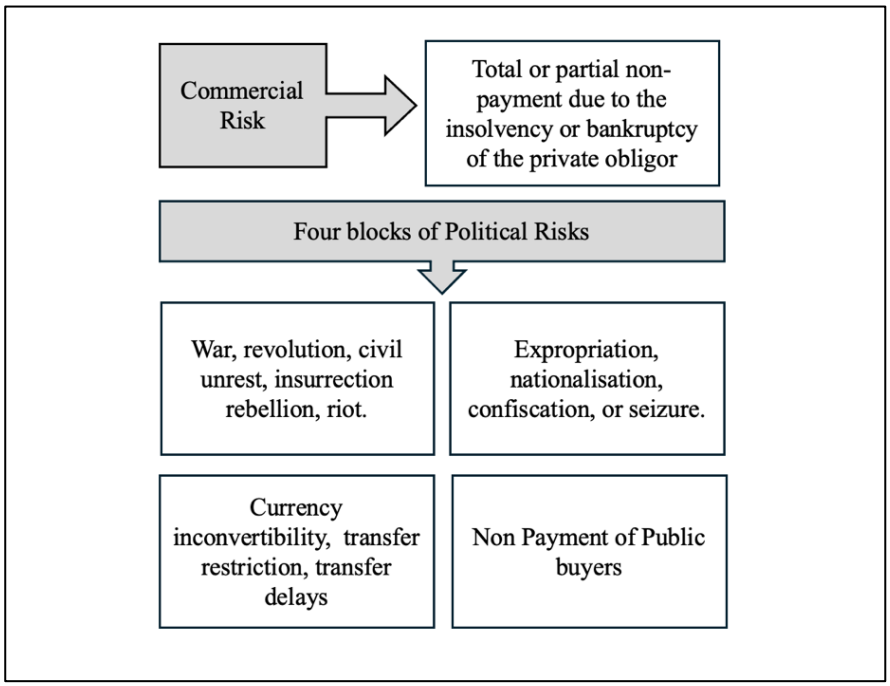
Given that credit risk is one of the main reasons why trade finance applications are declined, the next sections of this chapter focus on understanding the concept of credit risk within trade finance and examining the tools available to mitigate it. Drawing from both academic literature and practical experience, I will explore the instruments most used by banks to manage credit risk. By providing a structured overview of these credit risk mitigants and their providers, the rest of the chapter aims to lay the groundwork for assessing the research questions.

2.2 Credit Risk in Trade Finance and Instruments for Its Mitigation

As previously discussed in Chapter 1, trade finance fundamentally involves financing mechanisms for international trade that rely on trade receivables as collateral and/or the use of insurance to protect against the risk of non-payment (Ahn et al., 2011). It typically involves financial institutions that help manage the risk of default on trade credit extended by exporters, while also supporting the negotiation of payment terms (Amiti & Weinstein, 2011). In this way, trade

finance allows both exporters and importers to navigate the risks and complexities of cross-border transactions more effectively.

Figure 4: *Credit Risk Types in Trade Finance*



Source: developed by the author based on the literature

One of the most significant risks in trade finance is credit risk, which arises from the possibility that a party involved in a trade transaction may default on its payment obligations. The academic literature commonly distinguishes between two primary categories of trade credit risk: commercial risk and political risk. Egger & Url (2006) differentiate these two types of export credit risk, with commercial risk referring to the possibility of default by the buyer due to insolvency or unwillingness to pay, while political risk encompasses external, non-market-related events such as expropriation, war, or currency inconvertibility. Moser et al. (2008) similarly identify commercial and political risk as the main categories typically covered by export credit agencies, a view echoed by Heiland & Yalcin (2021), who note that these risks are central to the mandates of public export credit insurers. In the case of private insurance, Van der Veer (2015) also observes that commercial and political risks are routinely

covered under standard policies, particularly in short-term credit insurance contracts. These different risk types are summarised in Figure 4.

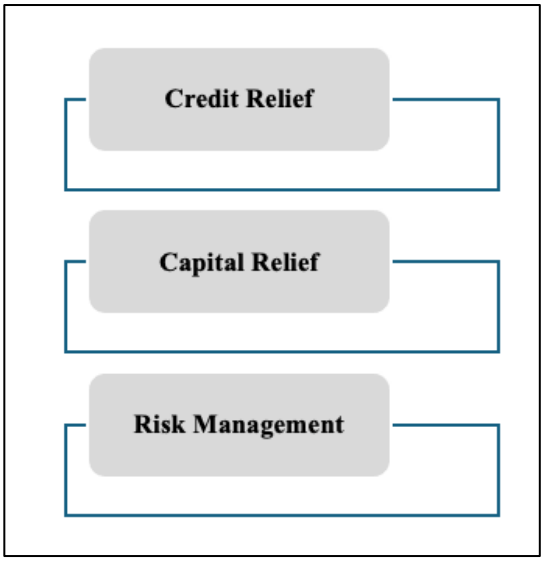
The nature and extent of risks affecting a trade finance transaction vary depending on the type of obligor and their jurisdiction. When dealing with a private obligor in a developed country, the primary concern is commercial risk, which arises from the counterparty's creditworthiness, including their solvency, liquidity, and payment behaviour. However, in transactions involving private obligors located in emerging markets, the exposure extends beyond commercial risk to include political risk, as the economic and regulatory environment of the country may hinder payment, even if the obligor is willing and able to fulfil their obligations. Moreover, when the obligor is a public entity, such as a sovereign, ministry, or state-owned enterprise, any failure to pay is generally classified as political risk, as it stems from sovereign decisions or public governance issues rather than market-based credit factors (ICISA, 2013). According to del Campo et al. (2021), government effectiveness is one of the most influential dimensions explaining the divergence in country performance across South America. Countries with weaker institutional capacity and inefficient public administrations pose a higher risk to international lenders, reinforcing the need for a robust political risk mitigation strategy. Understanding these distinctions is essential for structuring appropriate credit risk mitigation strategies in international trade.

Various trade finance instruments are available to facilitate international trade and reduce the risk of non-payment in cross-border transactions. Egger & Url (2006) highlight factoring, letters of credit (LCs), and trade credit insurance as key tools used to mitigate credit risk in export transactions. Coface classifies trade finance instruments into two main categories: funded and unfunded. Funded instruments provide immediate liquidity to exporters and include factoring, invoice discounting, forfaiting, and LC refinancing. Unfunded instruments, by contrast, do not involve the direct transfer of funds but offer payment guarantees. These include traditional letters of credit, standby letters

of credit (SBLCs), bank guarantees, performance bonds, documentary collections, trade credit insurance, and political risk insurance (Coface, 2023).

The use of credit risk mitigants (CRMs) in trade finance provides several key benefits for banks. Firstly, they offer credit relief by allowing banks to manage their exposure to specific obligors, thereby freeing up credit lines and enabling the financing of additional transactions. Secondly, credit risk mitigants contribute to regulatory capital relief, as the improved credit quality of a mitigated transaction can lead to a lower capital charge under prudential frameworks such as Basel III. This is particularly valuable in low-margin businesses like trade finance, where capital efficiency is critical. Finally, credit risk mitigants play an essential role in risk management by enabling banks to hedge against both commercial and political risks, particularly in transactions involving higher-risk jurisdictions or counterparties. These benefits not only improve the bank's balance sheet but also support broader access to trade finance, especially for clients operating in emerging markets.

Figure 5: *Credit Risk Mitigants Benefits*



Source: Developed by the author

Data on the volumes of different CRMs in trade finance is limited, and no single source offers a comprehensive overview of all instruments. The challenges include confidentiality requirements from banks and private insurance companies, differing methodologies across sources, inconsistent reporting practices, and the tendency to aggregate data for credit insurance with other types of insurance. This makes it difficult to obtain a clear understanding of the volume and use of each mitigation instrument. The Berne Union, a global association of export credit and investment insurers, publishes some data on total commitments, insured trade volumes, and claims from its members (ECAs and private insurers). These members collectively provide trade credit insurance for 13% of global trade. In 2023, a total of USD 2,78 trillion of credit insurance was extended, with 45% originating from public insurers (ECAs) and 55% from private insurers (Berne Union, 2024). However, there is no available breakdown specifying whether the clients were corporations or banks, nor is there a detailed categorisation of the types of instruments, such as LCs. According to ICISA, the International Credit Insurance & Surety Association, private sector insurers accounted for 72% of short-term trade credit insurance coverage in 2023 (ICISA, 2025). The volume of financing provided by MDBs can be derived from their annual reports; however, distinguishing between guarantees and direct financing remains challenging. In 2022, the short-term financing volume from MDBs was estimated at $7,3 billion (MDBs & DFIs, 2024).

2.3 Letter of Credit

A letter of credit (LC) is one of the most widely used financial instruments in international trade finance, designed to provide payment assurance and reduce counterparty risk. It is among the most widely used and standardised instruments in bank-intermediated trade finance (BIS, 2014). It is typically issued by a bank (the issuing bank) on behalf of the importer, guaranteeing payment to the exporter (beneficiary) upon fulfilment of specific contractual and documentary conditions. This mechanism fosters trust between trading

parties and ensures that payment is only made when pre-agreed terms are satisfied (Dornel et al., 2021). Several authors have analysed the structure and operation of LCs, including Auboin & Engemann (2014), who highlight the role of LCs in reducing both commercial and political risks in cross-border trade. Moreover, Niepmann & Schmidt-Eisenlohr (2017) found that disruptions in the availability of letters of credit have impacts on export performance.

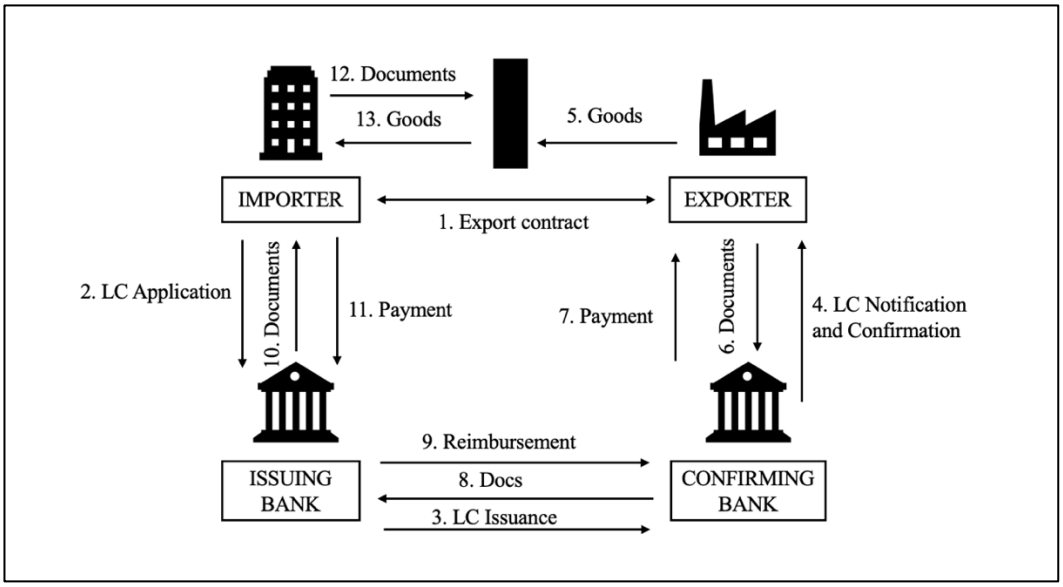
Because letters of credit typically involve multiple parties operating across different countries and legal systems, they are governed by a harmonised set of rules known as the Uniform Customs and Practice for Documentary Credits (UCP 600). This internationally accepted framework, issued by the International Chamber of Commerce, helps ensure consistency and predictability in LC transactions (WTO, 2016). The effective operation of LCs also relies heavily on strong correspondent banking relationships. These are bilateral partnerships between banks in different jurisdictions, which facilitate the secure and timely exchange of payment instructions and trade documents. Such relationships are often built over time and serve as the backbone for executing cross-border trade finance operations (Starnes et al., 2021).

Letters of credit are treated as off-balance sheet items under regulatory accounting rules. Although they are not recorded as immediate assets or liabilities, they create contingent liabilities that still require capital backing. As explained by Demir et al. (2017), banks holding LCs must first apply a credit conversion factor to the notional value of the instrument, converting it into an on-balance sheet equivalent. This adjusted value is then multiplied by a risk weight, reflecting the credit risk of the issuing bank. The result determines the capital that the bank must allocate against the exposure.

Consequently, the issuance and confirmation of LCs are not cost-free for banks, as they directly impact regulatory capital consumption. Using data on Turkish exports following the implementation of Basel II, Demir et al. (2017) find that the volume of LCs tends to decline when the associated capital charges increase,

particularly when the counterparty's risk weight rises. In effect, banks become less willing to confirm LCs for higher-risk obligors, creating a constraint on the availability of trade finance, especially in emerging markets or jurisdictions with elevated credit risk. Banks engaged in trade finance have expressed concerns that regulatory capital requirements act as a disincentive to offering letters of credit, given that trade finance typically generates relatively modest returns (Niepmann & Schmidt-Eisenlohr, 2017).

Figure 6: *Confirmed LC Workflow*



Source: Developed by the author based on the literature

An LC can be either confirmed or unconfirmed, depending on whether a second bank adds its guarantee to the payment obligation. In an unconfirmed LC, only the issuing bank, the buyer's bank, commits to pay the beneficiary, typically the exporter, once the conditions of the credit are fulfilled (Amiti & Weinstein, 2011). This structure exposes the exporter to the credit and country risk of the issuing bank. In contrast, a confirmed LC includes the additional undertaking of a second bank, usually located in the exporter's country, known as the confirming bank, which guarantees payment even if the issuing bank fails to do so. This confirmation eliminates the exporter's risk towards the foreign bank and provides greater security, particularly in cases involving unfamiliar or

higher-risk jurisdictions (Niepmann & Schmidt-Eisenlohr, 2017). As such, exporters often request confirmed LCs when trading with buyers in emerging markets or countries with political or economic instability.

Figure 6 illustrates the operational workflow of a confirmed LC in a typical international trade transaction.

1. The importer and exporter sign a commercial contract for the delivery of goods under specified conditions, including payment by letter of credit.
2. The importer requests its bank (the issuing bank) to issue a letter of credit in favour of the exporter. This request outlines the terms and conditions agreed in the contract.
3. The issuing bank issues the LC and sends it to the confirming bank (usually located in the exporter's country), requesting it to notify and confirm the credit.
4. The confirming bank notifies the exporter of the LC and adds its own independent commitment to pay, thereby guaranteeing payment provided the terms of the LC are complied with.
5. The exporter ships the goods to the importer according to the contract.
6. The exporter submits the required shipping and commercial documents (e.g., invoice, transport documents, packing list) to the confirming bank to evidence compliance with the LC terms.
7. Upon verifying that the documents comply with the LC, the confirming bank makes payment to the exporter, as it has undertaken to do under the confirmed LC.
8. The confirming bank forwards the verified documents to the issuing bank for reimbursement.
9. The issuing bank reimburses the confirming bank for the amount paid to the exporter.
10. The issuing bank provides the documents to the importer, enabling the release and clearance of goods.
11. Depending on the LC type (sight or deferred payment), the importer repays the issuing bank either immediately or at maturity.

12. The importer presents the documents to customs or its forwarding agent for clearance purposes.
13. The importer receives the goods from the port or airport, completing the physical leg of the transaction.

Therefore, when banks confirm LCs, they assume the risk of non-payment by the issuing bank, necessitating credit lines from the importer's bank and country (Crozet et al., 2022; Starnes et al., 2021). However, interbank credit limits are a limited resource in trade finance, particularly when the obligor is based in a developing country. The availability of these credit lines may be constrained due to prior transactions or concerns over the issuing bank's creditworthiness or country risk. This can lead to transaction rejections, exacerbating the trade finance gap. One of the main reasons for the rejection of the confirmation of LCs is the low credit rating of the issuing bank and its country risk, which can be hedged with credit risk mitigants (DiCaprio & Yao, 2017). According to the ADB survey on the trade finance gap, a leading measure of the state of trade finance worldwide, 54% of participating banks identified the low credit ratings of issuing banks as a significant obstacle to providing trade finance services (Beck et al., 2023).

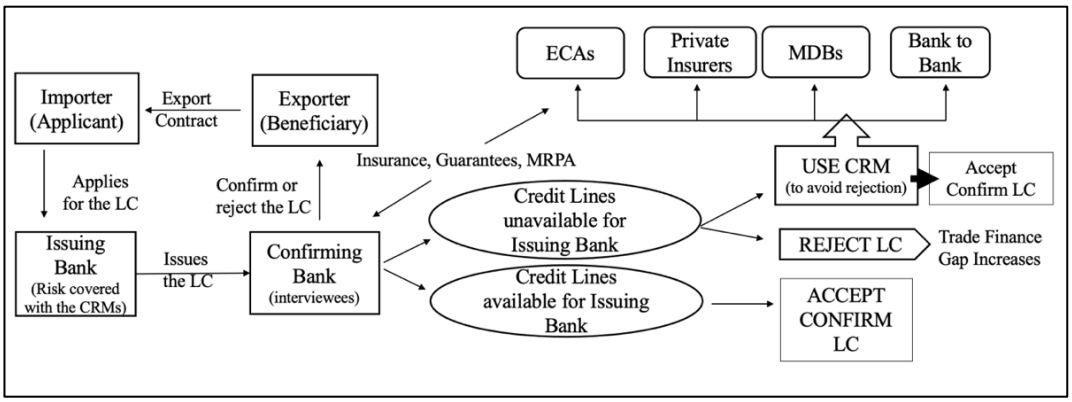
Nevertheless, banks can mitigate these credit and country risks using CRMs, which provide additional protection against the potential default of the issuing bank. CRMs are particularly valuable in trade finance transactions involving high-risk jurisdictions, where direct exposure may not be feasible under existing credit policies (Auboin, 2009). By transferring part or all the risk to a third party, these instruments enable banks to support transactions that would otherwise be rejected due to credit constraints (DiCaprio & Yao, 2017).

Key providers of credit mitigation in trade finance include Export Credit Agencies (ECAs), private credit insurers, Multilateral Development Banks (MDBs) (Chauffour & Farole, 2019) and other financial institutions active in the interbank secondary market. Each of these actors offers distinct forms of

protection, such as insurance policies, guarantees, or unfunded risk participations, that banks can leverage depending on the nature of the transaction and the characteristics of the counterparty.

From a regulatory standpoint, confirming an LC requires the bank to allocate both credit exposure and regulatory capital to the issuing bank (Auboin, 2009). However, CRMs offer a valuable solution in this context. When structured in accordance with Basel regulatory standards, CRMs can provide capital relief by allowing the confirming bank to substitute the risk weight of the obligor with that of the CRM provider, often a better-rated entity. This substitution reduces the capital charge associated with the transaction, freeing up resources and enabling greater participation in trade finance, particularly with clients in emerging or higher-risk markets.

Figure 7: *Flow and Options of Credit Risk Mitigants for a Confirmation of a Letter of Credit (LC)*



Source: Developed by the author

Figure 7 illustrates the decision-making process followed by a confirming bank when assessing whether to confirm an LC issued by another bank in an international trade transaction. The process starts when the importer (applicant) applies for an LC from the issuing bank as part of the agreed terms under the export contract with the exporter (beneficiary). Once the LC is issued, it is forwarded to the confirming bank for evaluation.

At this stage, the confirming bank must determine whether it has sufficient credit lines available for the issuing bank. If credit is available and the creditworthiness of the issuing bank is acceptable, the confirming bank proceeds to confirm the LC, allowing the transaction to move forward.

However, if credit lines are not available, often due to risk limitations relating to the issuing bank or its jurisdiction, the confirming bank may face constraints. Without a risk mitigation tool in place, it may reject the LC confirmation. This rejection contributes to the widening of the global trade finance gap by preventing potentially viable transactions from being executed.

To avoid such rejections, the confirming bank may instead opt to use CRMs. The figure shows that CRMs can be obtained from various providers, including ECAs, private insurers, MDBs, or other banks in the secondary market through instruments such as guarantees, insurance or unfunded risk participations (Asmundson et al., 2011; Cavoli et al., 2022). These tools help the confirming bank manage or share the credit risk associated with the issuing bank, enabling it to proceed with the confirmation even when credit lines are constrained.

Overall, the figure highlights the critical role of CRMs in maintaining the flow of trade finance, particularly in cases involving emerging markets or higher-risk institutions. Their use allows banks to overcome internal credit limitations and avoid rejecting LCs, thereby helping to reduce the global trade finance gap. Each of these credit risk mitigation providers is now examined in detail, along with the specific instruments they offer to support trade finance transactions

2.4 Credit and Political Risk Insurance

Credit and political risk insurance (CPRI) constitutes a key instrument within the credit risk mitigation toolkit available to banks engaged in international trade finance. As a risk-sharing mechanism, it enables financial institutions to manage and distribute credit risk more effectively between the banking and

insurance sectors. CPRI plays a particularly important role in cross-border transactions with higher-risk obligors or jurisdictions, where it helps reduce both exposure and regulatory capital requirements (Dornel et al., 2021; EBA, 2024).

Banks apply CPRI across a wide range of trade-related assets, including LCs, SBLCs, receivables, asset-backed financing, corporate loans, and syndicated loans. By improving the credit quality of these exposures, especially when the insurer carries a higher credit rating than the obligor, banks can lower their regulatory capital consumption. This capital relief arises because, under Basel regulations, credit insurance functions as an eligible CRM, effectively substituting the risk profile of the original counterparty with that of the insurer, subject to specific criteria being met (EBA, 2024).

Banks utilise credit insurance not only as a tool for mitigating credit risk but also for broader credit management purposes, including loss recovery, maintaining business continuity, stabilising cash flows, and overseeing credit exposure (Berne Union, 2024). Furthermore, in the context of commodity trade finance operations, A. Braun et al. (2023) find that banks' demand for credit insurance increases with their experience using the product, the perceived impact on their balance sheet, the risk level of the transaction, and the strength of their relationship with insurance brokers. The provision of insurance is structured as a partnership between the insurer and the insured party, whether an exporter or a financial institution, based on full disclosure of the underlying risk by the bank, and complemented by the insurer's own independent underwriting assessment.

Political risk insurance is a specialised form of coverage designed to protect businesses from harmful actions by governments, political entities, or individuals that negatively affect their international trade or foreign direct investment activities. It typically distinguishes between two main categories of risk: those related to cross-border trade transactions and those associated with

foreign direct investment (Braun, A. & Fischer, 2018). Credit insurance refers to a contractual agreement between a bank and an insurer covering a clearly defined credit exposure. This contract typically guarantees compensation for losses resulting from the obligor's non-payment, including unpaid principal and, in some cases, interest, following a duly submitted claim by the bank. Egger & Url (2006) explain that such insurance products limit potential losses ex ante by insuring a fixed sum based on the terms of the agreement.

Trade credit insurance is offered both by private insurance companies and ECAs. According to Dornel et al. (2021), this form of insurance protects sellers of goods and services from the risk of buyer default, while also serving as a vital enabler of trade finance. Public and private insurers alike provide coverage for both commercial and political risks, ranging from buyer insolvency to confiscation of goods or payment delays due to political instability (Auboin & Engemann, 2014).

WTW (2024) classifies CPRI into three principal product types: Contract Frustration (non-payment by sovereign obligors), Transactional Credit (non-payment by private obligors), and Political Risk (including war, expropriation, and licence cancellation). While A. Braun & Fischer (2018) argue that political risk insurance is generally purchased by exporters rather than by banks, other sources highlight that PRI is increasingly used in bank-intermediated trade credit, especially in high-risk jurisdictions.

The strategic value of export credit insurance is widely acknowledged. As Zammit et al. (2009) observe, its primary benefit lies not only in providing compensation for non-payment but in enabling exporters to undertake larger or riskier transactions and in improving their access to trade finance. The coverage may apply to bank-intermediated credit or directly to inter-firm credit arrangements.

From a regulatory standpoint, the use of credit insurance to obtain capital relief under Basel III entails rigorous conditions. Policies must provide comprehensive and irrevocable coverage for the full term of the exposure and typically require the bank to retain a portion of the risk, commonly between 10% and 20%, to preserve prudent risk management practices (WTO, 2016). To be eligible for capital relief, insurers must also meet specific creditworthiness standards, and policy wordings must adhere to Basel-compliant templates (EBA, 2024; ITFA & IACMP, 2023).

In sum, trade credit and political risk insurance represent critical instruments for banks to mitigate credit exposure, optimise capital, and expand into riskier or underserved markets. Their utility spans risk-sharing, regulatory compliance, and strategic expansion, making them indispensable tools in the evolving architecture of international trade finance.

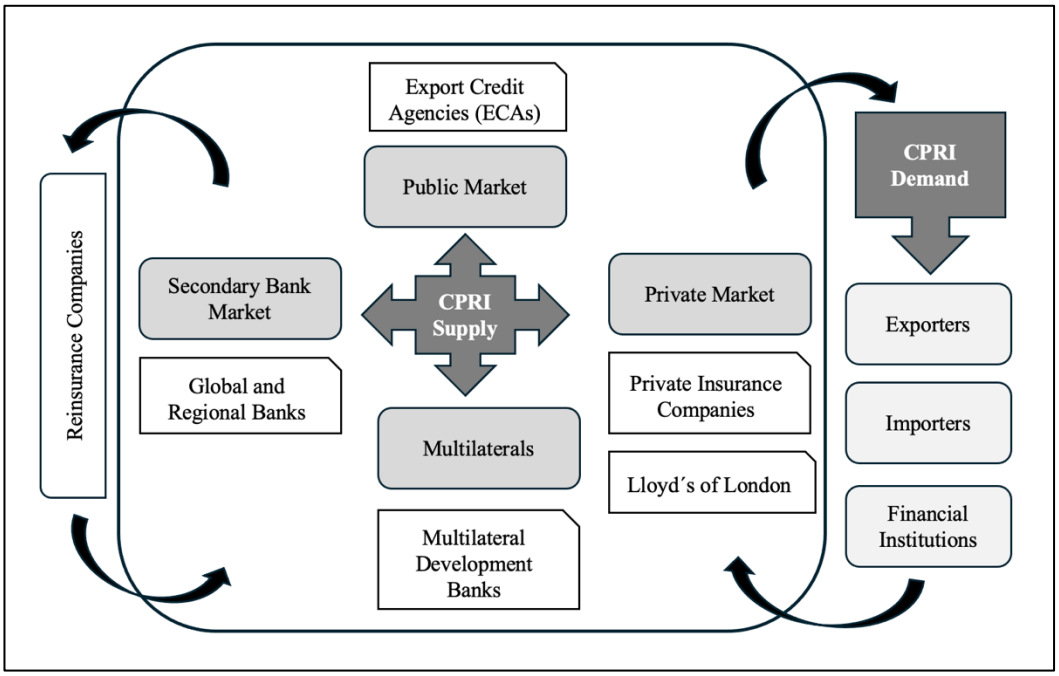
The CPRI market is supported by three main categories of providers: private insurance companies, ECAs and multilateral development institutions. These entities collectively offer a broad spectrum of credit risk mitigation solutions tailored to support both corporate and bank-intermediated trade finance transactions (Auboin & Engemann, 2014; Braun, A. & Fischer, 2018; Dornel et al., 2021).

Private insurers typically operate on a commercial basis, providing bespoke coverage for short-term trade credit exposures, while ECAs, supported by government mandates, focus on facilitating national exports and are more active in covering political risk, particularly in emerging markets. Multilateral institutions or MDBs also play a vital role in de-risking transactions involving high-risk jurisdictions, often through guarantee programmes that support bank confirmations or other trade instruments.

In addition to these insurance-based providers, there is a bank-to-bank secondary market that facilitates risk distribution through instruments like

unfunded risk participations. Although this market is less extensively examined in the academic literature, recent studies acknowledge its relevance in broadening the capacity of financial institutions to support global trade (Asmundson et al., 2011; Cavoli et al., 2022). In many cases, CPRI providers make use of reinsurance from firms specialised in credit insurance, enabling them to manage their own exposures effectively and retain the capacity to underwrite large or complex transactions (Dornel et al., 2021; Krummaker & Klasen, 2025). Figure 8 illustrates the structure of the CPRI supply and demand market, showing the different types of providers and clients.

Figure 8: *Demand and Supply CPRI Market*



Source: Developed by the author based on the literature

2.5 The Export Credit Agencies

ECAs are institutions established to support and promote the exports of their home countries. Governments aim to support export activity by providing export credit guarantees that protect exporters against potential losses, especially those arising from political risks (Moser et al., 2008).

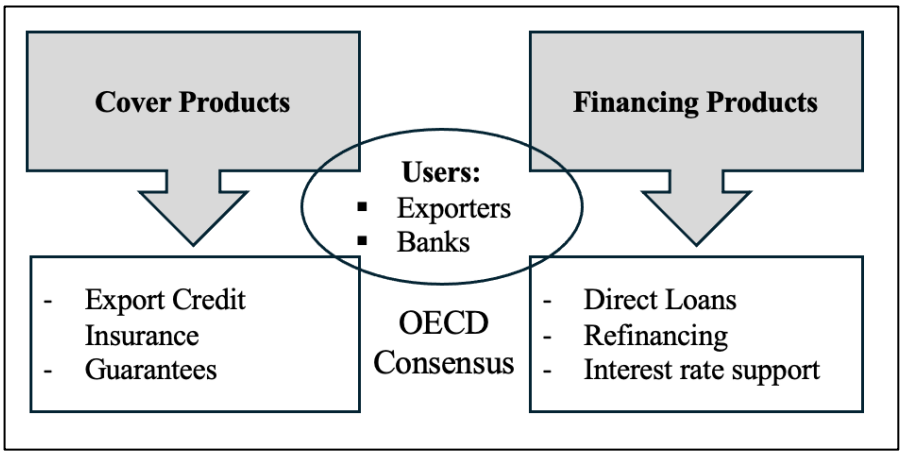
Their structure and function vary across jurisdictions, and they may operate as private companies or semi-governmental bodies. ECAs typically fall into three legal categories (Klasen & Janus, 2023; Salcic & Zlatko, 2014). Some operate as banks or financial institutions, wholly or partially owned by the state, following the export–import bank model. Others are private insurers mandated by the government to provide export credit cover, distinct from their commercial insurance activities. A third category comprises government agencies that act directly on behalf of the state to issue export credit guarantees. Despite their structural differences, all ECAs receive official support from their national governments.

The main role of official ECAs is to complement the private insurance market by taking on credit risks that private insurers cannot cover (Grath, 2016). Governments justify their involvement on the grounds that private financial markets often fall short in offering adequate financing for certain categories of export transactions (Heiland & Yalcin, 2021). ECAs began to emerge in the early 20th century as a response to the reluctance of private insurers to cover export credit risks, especially those involving long payment terms and uncertain political or commercial environments. The first ECA, the UK's Export Credits Guarantee Department (now UKEF), was established in 1919. This initiative soon inspired other nations to set up their own institutions, with Belgium launching its agency in 1921, followed by Denmark in 1922, the Netherlands in 1923, and several other countries establishing similar entities in the subsequent years (ICISA, 2013). While private insurers now provide coverage for short-term export risks, ECAs remain essential for offering medium- and long-term guarantees, supported by their national governments (Salcic & Zlatko, 2014).

The academic literature has extensively explored the impact of ECA products on trade flows, particularly exports. Several studies identify a strong and positive relationship between the availability of export credit guarantees or insurance and export performance. For example, Felbermayr & Yalcin (2013) highlight that Hermes guarantees significantly boost sectoral exports in

Germany, especially in industries that rely heavily on external financing. Similarly, Moser et al. (2008) find a positive country-level effect in their broader analysis. Studies focusing on Austria, such as those by Egger & Url (2006) and Badinger & Url (2013), also report favourable export outcomes linked to ECA support. Janda et al. (2013) reach comparable conclusions for the Czech Republic. Abraham & Dewit (2000) show that government guarantees can encourage firms to engage in exporting activities even when no subsidy is provided, as long as the premium charged is fair. On a larger scale, Auboin & Engemann (2014), using data from over 70 countries and including both public and private providers, demonstrate that export credit insurance has a robust and statistically significant effect on bilateral trade volumes. These findings collectively support the view that ECA instruments play a key role in facilitating international trade by mitigating payment risk and easing access to finance.

Figure 9: *ECA Products*



Source: developed by the author based on the literature

As we can see in Figure 9, ECAs offer a range of products to support international trade, with the primary form being ECA cover, which includes export credit insurance and guarantees. Export credit insurance by the ECAs is also called a public export credit guarantee (Egger & Url, 2006). These tools are specifically designed to protect exporters and their banks against non-payment risks arising from both commercial defaults and political disruptions.

In addition to providing this type of risk cover, some ECAs also offer official financing support, such as direct loans, refinancing, or interest-rate subsidies to foreign buyers or their banks to facilitate trade transactions. The main beneficiaries of these instruments are exporting companies, which gain greater payment security when offering credit terms, and financial institutions, which are able to extend trade finance with reduced exposure to credit risk (Grath, 2016; Klasen & Janus, 2023). The regulatory framework governing the activities of ECAs is set at the international level by the Organisation for Economic Co-operation and Development (OECD) through the OECD Arrangement on Officially Supported Export Credits, commonly referred to as the OECD Consensus.

Table 2 presents a list of ECAs and their respective countries. Heiland & Yalcin (2021) provide an in-depth explanation of the German ECA and its product offerings. ECAs offer a broad range of products designed to support both exporters and financial institutions engaged in cross-border trade. These products aim to reduce payment risk and facilitate access to financing for international transactions. The percentage of risk coverage, both commercial and political, typically ranges between 90% and 95%, although in some ECAs it may reach up to 100%, especially for political risks (Grath, 2016). Compensation is usually subject to a waiting period of three to six months following the default or triggering event.

Table 2: ECAs by Country

Country	Name of the ECA
Australia	Export Finance Australia
Austria	Oesterreichische Kontrollbank AG (OeKB)
Belgium	Credendo
Canada	Export Development Canada (EDC)
Colombia	Colombian development bank (Bancoldex)
Czech Republic	Export Guarantee and Insurance Corporation (EGAP) Czech Export Bank
Denmark	Export and Investment Fund of Denmark (EIFO)
Estonia	AS KredEx Krediidikindlustus
Finland	Finnvera
France	Bpifrance Assurance Export
Germany	Euler Hermes Aktiengesellschaft
Greece	Export Credit Greece S.A. (ECG) previously Export Credit Insurance Organisation (ECIO)
Hungary	Hungarian Export-Import Bank Plc. (Eximbank) and Hungarian Export Credit Insurance Plc. (MEHIB)
Israel	The Israel Export Insurance Corp. Ltd. (ASHRA)
Italy	SACE and SIMEST
Japan	Nippon Export and Investment Insurance (NEXI) Japan Bank for International Cooperation (JBIC)
Korea	Korea Trade Insurance Corporation (K-SURE)
	The Export-Import Bank of Korea (KEXIM)
Latvia	Development Finance Institution Altum (JSC)
Lithunia	National Promotional Bank. (ILTE
Luxembourg	Office du Ducroire (ODL)
Mexico	Banco National de Comercio Exterior
Netherlands	Atradius Dutch State Business (Atradius)
New Zealand	Export Credit Office (ECO)
Norway	Export Finance Norway (Eksfin)
Poland	Korporacja Ubezpieczén Kredytów Eksportowych (KUKE)
Portugal	Companhia de Seguro de Créditos (COSEC)
Slovak Republic	The Export-Import Bank of the Slovak Republic (Eximbanka SR)
Slovenia	Slovenska izvozna in razvojna banka, d.d. (SID)
Spain	Compañía Española de Seguros de Crédito a la Exportación (CESCE)
Sweden	Exportkreditnämnden (EKN) AB Svensk Exportkredit (SEK)
Switzerland	Swiss Export Risk Insurance (SERV)
Turkey	Export Credit Bank of Türkiye (Türk Eximbank)
United Kingdom	UK Export Finance (UKEF)
United States	Export-Import Bank of the United States (EXIM Bank)

Source: developed by the author based on the OECD information

The most relevant insurance products offered by ECAs for exporters are as follows:

- Supplier credit guarantees**:** Mitigate the risk involved when exporters extend deferred payment terms directly to foreign buyers. The ECA guarantees a portion of the receivables, reducing the exporter's financial exposure.
- Investment insurance: Covers equity investments abroad against political risks in the host country, including expropriation, political violence, currency restrictions, or breach of contract. This encourages exporters and investors to expand into emerging or high-risk markets.
- Bond cover**:** Provides protection for performance-related bonds such as bid, performance, or advance payment bonds issued by exporters. Crucially, it covers the exporter against the risk of unfair calling, where a bond is called without legitimate grounds, safeguarding the exporter's financial position.

And the most relevant mitigation products offered by ECAs for financial institutions are as follows:

- Buyer credit guarantees: Secure loans extended by banks to foreign buyers for the purchase of goods and services from national exporters. These guarantees transfer the repayment risk to the ECA, enhancing access to finance for cross-border deals.
- Letter of credit confirmation guarantees**:** Protect confirming banks from default risk by the issuing bank in a letter of credit transaction. This allows banks to confirm LCs even when the issuing institution is in a higher-risk jurisdiction, improving liquidity and trust in international trade.

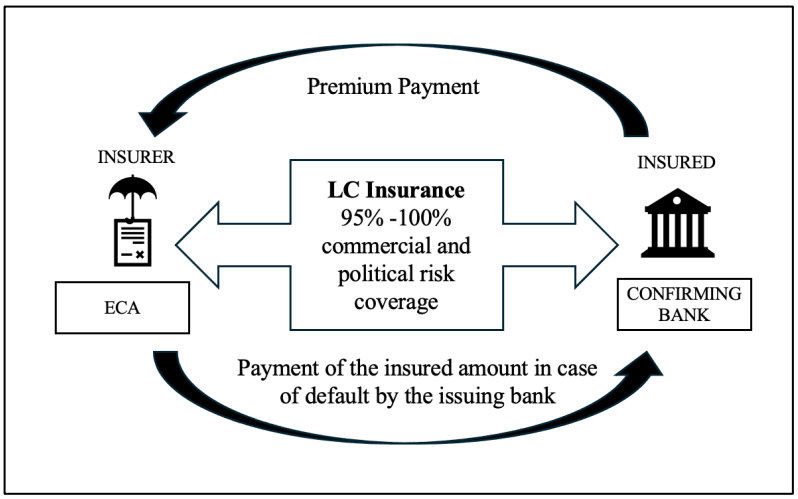
- Bond cover: Protects financial institutions that issue or guarantee bonds on behalf of exporters, such as performance or advance payment bonds, against losses arising from bond calls, particularly in unstable markets.
- Working capital loans**:** Provide exporters with pre-shipment financing to support production and fulfilment of export orders. ECAs may guarantee or directly finance these loans, enhancing liquidity for firms with limited collateral.
- Object financing (or project finance)**:** Supports long-term export transactions involving high-value capital goods or infrastructure. ECAs provide guarantees or insurance to lenders, enabling them to offer extended repayment terms for complex, capital-intensive projects.
- Overseas investment insurance**:** Offers protection to banks financing overseas investments, such as through project finance or joint ventures, against political risks including nationalisation, political violence, currency transfer restrictions, and breach of contract. This reduces the risk of long-term exposure in emerging markets.
- Refinancing and interest rate support**:** Includes mechanisms such as interest rate equalisation, fixed-rate financing, or access to preferential refinancing schemes. These tools help make loans more affordable for buyers and improve bank participation in structured trade deals.

As discussed, one of the key products that ECAs offer to banks is insurance coverage for the confirmation of letters of credit. Commonly referred to as documentary credit policy, letter of credit confirmation insurance, or simply LC guarantee, this product protects the confirming bank against the risk of non-payment by the issuing bank (Grath, 2016).

When a bank confirms an LC, it undertakes to pay the exporter upon fulfilment of the agreed terms, effectively assuming the credit risk of the issuing bank. This can be particularly risky when the issuing bank is based in a country with

low credit ratings or heightened political and economic instability. Figure 10 illustrates the basic flow of a letter of credit insurance policy provided by an ECA to a confirming bank. In this arrangement, the confirming bank seeks protection through an insurance contract with an ECA. The ECA, acting as the insurer, offers coverage against both commercial and political risks, typically ranging from 95% to 100% of the insured amount.

Figure 10: *ECA LC Insurance Policy Flow*



Source: developed by the author

The process begins with the confirming bank paying a premium to the ECA in exchange for the insurance coverage. In the event of default by the issuing bank, whether due to insolvency, transfer restrictions, political unrest, or other covered risks, the ECA commits to compensate the confirming bank for the insured portion of the transaction. This flow enables confirming banks to reduce their exposure when dealing with counterparties in higher-risk jurisdictions and facilitates the continued issuance of LCs, even when credit constraints or country risks might otherwise prevent it. Chapter 4 will present the findings of our empirical study on how banks use this ECA-provided coverage, shedding light on the practical barriers and drivers behind its adoption.

2.6 Private Credit Insurance Market

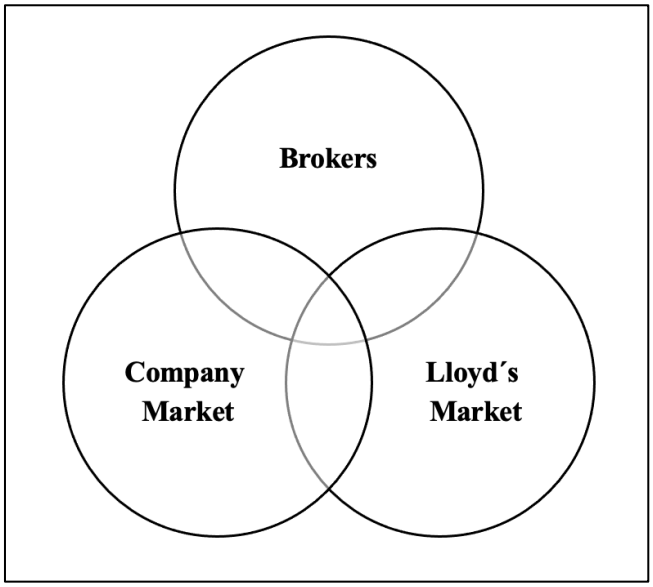
Credit insurance from private insurers is another tool that banks can use to mitigate and diversify their credit risk, which protects against losses from the non-payment of trade debts. For many years, political export credit risk was primarily managed by public ECAs. However, since the early 2000s, private credit insurers have increasingly expanded their services to include not only commercial risk, both domestic and international, but also political risk. In many cases, these insurers offer comprehensive policies that combine both types of coverage within a single contract (ICISA, 2013). The insurance sector plays a crucial role in maintaining economic stability by offering key risk management tools that safeguard businesses against unexpected financial setbacks (Morales de Vega et al., 2025).

The private insurance market is composed of two main segments: the company market and the Lloyd's market (Dornel et al., 2021; ICISA, 2013). Currently, around 60 insurers actively operate in the global credit insurance market. These insurers hold investment-grade credit ratings, ranging from A- to AA, as assessed by agencies such as Fitch, Moody's, and S&P (IACPM & ITFA, 2023).

The company market refers to traditional insurance companies that operate independently or as part of larger financial groups, offering credit and political risk insurance directly or through brokers. Van der Veer (2015) identifies the "Big Three" private credit insurers based on 2010 market share data: Hermes (now Allianz Trade), covering 35% of the global market; Atradius with 31%; and Coface accounting for 20%. Other private insurance companies active in the CPRI market are AIG, Axa, Chubb, Liberty Speciality Markets, Sovereign Risk Insurance, SwissRe Corporate Solutions, XL Catlin, Zurich Insurance Group.

The Lloyd's market in London operates as a distinctive global platform for insurance and reinsurance, renowned for its concentration of specialist underwriting expertise. It is composed of a network of syndicates that underwrite complex and high-risk policies, including trade and export credit (ICISA, 2013). Unlike the company market, access to Lloyd's is only possible through accredited brokers, which reinforces its nature as a highly specialised and intermediary-driven environment. The market includes over 50 leading insurers, more than 380 registered Lloyd's brokers, and a global network of over 4,000 local coverholders who channel business into Lloyd's from across the world (Lloyd´s).

Figure 11: *The Private CRPI Market*



Source: Elaborated by the author

Another key player in the private credit insurance market is the specialised broker. A specialist insurance broker plays a key role in helping banks and financiers access the credit insurance market (Deutsche Bank et al., 2021). When dealing with private insurers, banks can either approach the insurance company directly or work through brokers. However, access to the Lloyd's of London market must be conducted exclusively via accredited brokers, making them indispensable intermediaries in this space.

Brokers play a central role in connecting the specific needs of banks with the underwriting preferences and risk appetite of insurers. They do not merely facilitate the initial transaction but also provide ongoing support throughout the life of the insurance policy. This includes helping with administrative procedures, assisting in the event of claims, and guiding recovery efforts. In addition, brokers often possess a deep understanding of credit insurance mechanisms and market trends, serving as valuable sources of independent, expert advice (Grath, 2016). Their insights into policy structuring, market capacity, and pricing help banks navigate the increasingly complex landscape of credit risk mitigation. Some of the most active specialised brokers in the credit and political risk insurance market include Arthur J. Gallagher, Aon, BPL, Howden, Marsh, Texel Group, and Willis (ITFA & IACMP, 2023). These firms bring considerable expertise, broad networks, and significant placement capacity, making them essential partners for financial institutions seeking tailored credit risk mitigation solutions.

The growth of the private credit insurance market for banks accelerated in the early 2000s, largely driven by the implementation of Basel II regulations. European financial institutions began seeking insurance policies with transparent and straightforward terms that complied with the regulatory standards for unfunded guarantees. Today, such credit insurance arrangements between insurers and banks are viewed as collaborative partnerships. To remain compliant with Basel requirements, these policies must provide coverage for defaults by the obligor, regardless of the underlying cause (IACPM & ITFA, 2023).

Private export credit insurance and public ECA guarantees serve similar purposes but differ notably in structure and scope. Private insurers usually provide cover for short-term trade receivables, typically between 60 and 120 days, aligning with the needs of routine commercial transactions. On the other hand, public ECAs tend to support medium- and long-term projects, often lasting two to five years, where the export itself may occur long after the

issuance of the guarantee (Van der Veer, 2015). However, some large private insurance companies also provide coverage for long tenors (Swiss Re, 2014). This distinction reflects the different roles each provider plays in facilitating international trade finance.

Private insurance companies offer a broad range of CPRI policies tailored to the needs of both corporates and financial institutions. For exporting companies, policies typically cover commercial risks such as buyer insolvency or protracted default, as well as political risks like expropriation, currency inconvertibility, or war. These may be issued on a single-risk or whole-turnover basis, with flexible terms adapted to specific transactions or trading relationships. For banks, insurers provide bespoke policies covering a variety of trade-related assets, including letters of credit, standby LCs, receivables, structured trade finance, and project finance. These policies often act as unfunded credit risk mitigants, offering protection against non-payment by corporate or sovereign obligors. Insurers may also provide investment insurance for financial institutions supporting foreign direct investment projects, protecting against political perils that could disrupt operations or repayment (ICISA, 2013; Turguttopbas & Küçüker, 2020; Zammit et al., 2009).

Within the category of single-buyer coverage, single risk insurance refers to a highly tailored policy designed to cover an individual transaction or exposure (ICISA, 2013). This type of insurance policy can be customised in terms of coverage scope, tenor, and structure, and typically offers protection against both commercial risks (like insolvency or protracted default) and political risks (such as expropriation or transfer restrictions). One common requirement is minimum risk retention, which mandates that the insured retain a specified percentage of the exposure without insurance or hedging. Therefore, this product does not allow banks to cover 100% of the risk, but usually covers up to 90% of any given loss.

Private credit insurance offers several advantages over cover provided by ECAs, particularly in terms of flexibility, responsiveness, and scope of coverage (ICISA, 2013). One of the key benefits is its suitability for medium-term transactions, typically ranging between six months and two years, which often fall outside the traditional structures used by ECAs. Private insurance is also commonly used to complement buyer credit transactions, especially for elements not typically covered by public guarantees, such as advance payments, local costs, or goods and services sourced from third countries. Another important advantage lies in the speed of response. Private insurers are generally able to deliver decisions more quickly than ECAs, making them particularly valuable for exporters who must submit tenders within tight deadlines. Moreover, private market policies can be more adaptable, allowing for tailor-made wording that reflects the specific needs of the insured party. This flexibility also extends to country coverage, as some private insurers may offer protection in markets where ECAs are unwilling or unable to operate. Finally, for large transactions or investment-related policies requiring higher levels of insurance capacity, private insurers can provide additional support where ECA resources are limited, thus ensuring adequate risk coverage.

Several empirical studies have explored the impact of private export credit insurance on export performance, highlighting its role in facilitating international trade. Choi & Kim (2021), using firm-level data, find that short-term export credit insurance contributes significantly to increasing exports by easing the financial constraints of exporting firms. Their analysis further reveals that this positive effect is particularly pronounced when the destination country is a developing economy or when the exporters are small-sized enterprises. Similarly, Van der Veer (2015) identifies a positive relationship between private export credit insurance and export growth, suggesting that access to insurance coverage enables firms to expand their international sales by reducing perceived payment risks. Zammit et al. (2009) conducted a survey with approximately 1,000 firms in Australia to examine the importance of export credit insurance. The results of the study indicate that companies benefiting

from insurance policies experience an increase in their export revenues. These firms also find it easier to access trade finance opportunities.

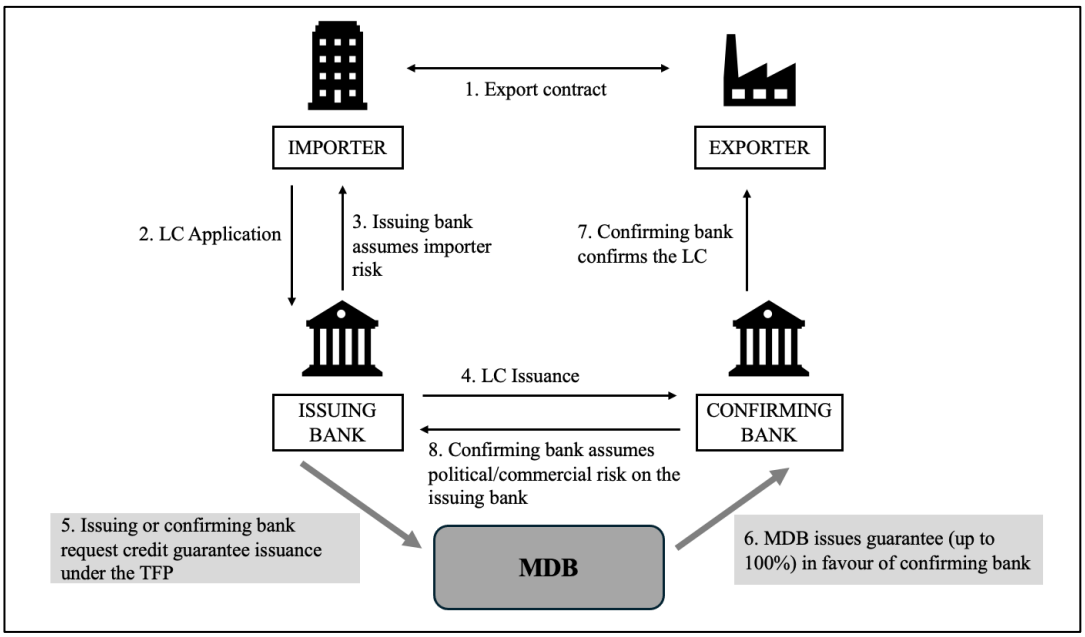
2.7 Multilateral Development Banks

MDBs play a key role in facilitating international trade by providing trade finance programmes that mitigate the credit and political risks associated with cross-border transactions. These programmes offer partial or full guarantees to confirming banks, typically based in developed economies, covering the payment risks posed by issuing banks located in emerging markets (Henderson & Smallridge, 2019) and allowing confirming banks to expand their exposure limits to banks, thereby allowing them to support a higher volume or increased number of letters of credit issued by those institutions (Gajigo et al., 2014). The financial instruments covered under these schemes include letters of credit, promissory notes, bills of exchange, and various types of bonds, such as bid, performance and advance payment guarantees, essential tools in international trade.

The operational mechanism of these programmes is relatively standardised. Figure 12 illustrates the process of a trade finance transaction under an MDB´s Trade Finance Programme (TFP). It begins with the importer and exporter entering into an export contract, after which the importer applies for an LC through its issuing bank. The issuing bank, which takes on the importer's payment risk, then issues the LC. The confirming bank, typically in the exporter's country, considers whether to confirm the LC. If the confirming bank lacks sufficient risk appetite or available credit lines to cover the issuing bank, particularly if the issuing bank is located in a high-risk or emerging market, it can request a guarantee from the MDB under the TFP. This request can also come from the issuing bank. In response, the MDB may issue a guarantee, covering up to 100% of the political and commercial risk of the issuing bank in favour of the confirming bank (WTO, 2016). With this guarantee in place, the

confirming bank is more likely to confirm the LC, thus facilitating the transaction and mitigating risk.

Figure 12: *TFP Credit Guarantee Issuance*



Source: Developed by the author

The guarantees provided are usually irrevocable and payable on demand, ensuring that if the issuing bank defaults, the confirming bank is promptly compensated. Although claims are rarely triggered, the existence of these guarantees plays a critical role in reducing perceived risk and facilitating trade finance flows, particularly between developed and developing countries, or among developing countries themselves.

MDBs maintain public lists of eligible issuing and confirming banks participating in these programmes, which are published on their official websites. These lists ensure transparency and ease of access for financial institutions seeking to engage in trade transactions under the programme. For example, banks can consult the Global Trade Finance Program (GTFP) page of the International Finance Corporation (IFC), or similar resources provided by the Asian Development Bank (ADB), the African Development Bank (AfDB),

the Inter-American Development Bank (IDB), or the European Bank for Reconstruction and Development (EBRD).

The strategic role of MDBs in this domain lies not only in their provision of risk-sharing mechanisms but also in their ability to strengthen financial and trade inclusion in low-income economies (WTO, 2016). These guarantees reduce the perceived credit and political risks that discourage confirming banks from engaging with counterparties in developing countries. As Dornel et al. (2021) explain, MDBs intervene to ensure that local issuing banks maintain access to credit lines from international banks, which are crucial for confirming LCs and maintaining other correspondent banking relationships.

These guarantees are typically not called upon, which attests to their effectiveness as deterrents rather than actual claim triggers. Nevertheless, they are invaluable in enhancing the creditworthiness of issuing banks in jurisdictions with limited access to international liquidity. These programmes are particularly relevant in times of systemic distress. During the 2008–2009 global financial crisis and again during the COVID-19 pandemic, MDBs scaled up their support, expanding both the size and scope of their facilities (BIS, 2014; Dornel et al., 2021; WTO, 2016).

Each of the major MDBs has developed specific trade finance programmes tailored to regional needs. The IFC, part of the World Bank Group, manages initiatives like the Global Trade Finance Program and the Global Trade Liquidity Pool, which operate in partnership with commercial banks through co-financing arrangements of 40 to 60% (BIS, 2014). The Asian Development Bank, the African Development Bank, the Inter-American Development Bank and the European Bank for Reconstruction and Development all operate similar trade facilitation programmes, which proved instrumental in sustaining trade flows during the COVID-19 pandemic (Asmundson et al., 2011).

Table 3: *Overview of the Main MDB Trade Finance Programs*

MDB	IFC	EBRD	IDB Invest	ADB
Name of the programme	Global Trade Finance Program (GTFP)	Trade Facilitation Program (TFP)	Trade Finance Facilitation Program (TFFP)	Trade Facilitation Program (TFP)
Programme start	2005	1999	2005	2004
Number of transactions since start	188.000	31.000	16.500	30.000
Global volumen since start	$120 billion	€41,3 billion	$12,3 billion	$45 billion
Number of issuing banks	225	125	88	79
Number of countries of issuing banks	69	28	19	16
Number of confirming banks	1.100	830	95	168
Number of countries of confirming banks	90	91	34	90

Source: Developed by the author based on the information from the websites of the MDBs

MDBs not only provide guarantees but also offer technical assistance to help local financial institutions develop their trade finance capabilities. As Auboin (2009) notes, these institutions have supported the creation of trade finance departments in banks across developing economies. In this sense, MDBs do not merely provide liquidity or risk coverage; they build institutional capacity, expand financial inclusion, and ultimately promote sustainable export development.

Furthermore, MDBs complement the offerings of public and private credit insurers. While ECAs and private insurers dominate the space of credit and political risk insurance, MDBs serve as an additional layer of institutional support. A. Braun & Fischer (2018) highlight that these multilateral institutions are often formed by coalitions of states to support their export and investment development goals, positioning them as essential actors in global trade risk management.

As mentioned, these programmes are particularly valuable in times of global stress or financial crisis, when risk aversion and liquidity constraints tend to be highest (Asmundson et al., 2011). During the COVID-19 pandemic, MDBs responded swiftly to the global trade finance disruption by expanding their support mechanisms to sustain the flow of essential goods, particularly in developing economies where international correspondent banks had withdrawn (Auboin, 2021). The heads of the World Trade Organisation and six multilateral development banks issued a joint statement on 1 July 2020, committing to address the critical shortages in trade finance that had been exacerbated by the COVID-19 pandemic. In response, each institution implemented targeted measures to strengthen trade flows, particularly in developing regions. The data presented below on volumes and interventions undertaken by each institution is derived from that joint commitment and reflects the significant scale of multilateral efforts to support global trade during the crisis (Starnes & Nana, 2020).

The IFC, part of the World Bank Group, launched a $6 billion initiative within the broader $14 billion COVID-19 response package. This included $2 billion each for the Global Trade Liquidity Program, the Critical Commodities Finance Program, and the Working Capital Solutions program, alongside reallocating $2 billion from its existing $5 billion Global Trade Finance Program.

Similarly, the ADB introduced a $20 billion comprehensive assistance package, within which it expanded its $2.45 billion trade and supply chain finance

programmes. ADB supported 1,700 transactions worth $1.2 billion in just eleven weeks, targeting urgent needs such as COVID-19 test kits, personal protective equipment, and medicines.

In Europe and its neighbouring regions, the EBRD included an expanded trade finance component in its two Solidarity Packages. During the first five months of 2020 alone, the EBRD provided a record €1.5 billion in trade finance to support cross-border commerce.

The AfDB, through its $10 billion COVID-19 Rapid Response Facility approved in April 2020, allocated up to $1 billion for trade finance liquidity and risk mitigation support across all 54 of its regional member countries.

In the Islamic world, the International Islamic Trade Finance Corporation (ITFC), part of the Islamic Development Bank Group, launched an $850 million initiative within the broader $2.3 billion 3Rs Economic Recovery Program (Respond, Restore and Restart). The ITFC programme offered both financing and technical assistance to governments, financial institutions, and SMEs.

In Latin America and the Caribbean, IDB Invest saw a 245% year-on-year increase in demand for its Trade Finance Facilitation Program (TFFP) in March 2020. In response, it doubled the programme's capacity, committing an additional $1.5 billion to reach a total of $3 billion in guarantees and lending aimed at supporting MSMEs during the crisis. This collective and regionally coordinated response by MDBs played a crucial role in stabilising trade flows during the most acute phases of the pandemic.

2.8 Bank-to-Bank Risk Distribution Market

The bank-to-bank market for credit risk mitigation in trade finance remains an underexplored area in academic literature, largely due to its confidential and relationship-driven nature. Unlike public credit insurance or multilateral

guarantee programmes, bank-to-bank risk distribution is typically conducted through private arrangements between financial institutions, with limited disclosure and minimal data available. As a result, this segment of the trade finance ecosystem has received relatively little scholarly attention despite playing a crucial role in managing risk and maintaining liquidity.

Banks can manage trade finance exposure through funded or unfunded risk participation agreements with other financial institutions. These allow the originating (or lead) bank to share transaction risk, either by transferring a portion of the funding obligation or, in the case of unfunded participation, by transferring the credit exposure without advancing funds (Wynne & Coles, 2024). Such mechanisms are particularly valuable when a confirming bank has reached its credit limit for a particular issuing bank or country but wishes to support a transaction through collaboration with another institution.

In unfunded participations, the investor does not advance funds but commits to pay only if the obligor defaults, functioning like an on-demand guarantee. This method is flexible and quick to execute, especially for transactions with future or variable maturities. However, the originating bank retains contingent risk on the investor, who must be creditworthy enough to honour a claim in case of default. In funded participations, the investor pays the seller upfront, transferring liquidity and risk immediately. This benefits the seller by eliminating future exposure, but it introduces recovery risk for the investor, especially if the selling bank becomes insolvent. Legal safeguards such as trust structures or conditional asset transfers are often used to mitigate this. While funded deals are more secure for the seller, they may involve additional costs and operational considerations (Deutsche Bank et al., 2021).

The primary legal and operational tool supporting these transactions is the Master Risk Participation Agreement (MRPA), standardised by the Bankers Association for Finance and Trade (BAFT). Introduced in 2008 and governed under English or New York law, the MRPA provides a common contractual

framework that facilitates the seamless transfer of trade finance-related assets. It reduces the need for lengthy bilateral negotiations and lowers legal costs by offering pre-agreed terms and definitions. In response to evolving regulatory and market needs, the MRPA was updated in 2018 and 2019, and again in 2022 to incorporate changes such as the global transition away from LIBOR (BAFT, 2025).

This risk-sharing tool is widely used for short-term trade finance instruments, including LCs, receivables, and supply chain finance obligations. By enabling the redistribution of risk, the MRPA helps lead banks optimise credit limits, regulatory capital, and operational flexibility, while also offering access to trade finance opportunities to institutions with limited direct exposure to certain markets.

Empirical findings also point to the resilience of this bank-to-bank risk distribution channel. According to Asmundson et al. (2011), during the 2008–2009 global financial crisis, most banks surveyed reported stable or increased use of secondary markets for trade finance, in contrast to declines observed in other sectors such as commercial paper or asset-backed securities. This stability suggests that bank-to-bank participation markets offer a reliable buffer against liquidity constraints and risk concentration during periods of financial stress.

Overall, although under-researched, the bank-to-bank market constitutes a vital component of the trade finance risk mitigation landscape. Through the use of MRPA and trusted bilateral relationships, banks are able to expand their trade finance capacity, navigate regulatory requirements, and serve clients operating in higher-risk jurisdictions, all while maintaining flexibility and resilience in global financial markets.

2.9 Other Credit Risk Mitigants

Beyond the main credit risk mitigants used by banks and previously discussed, such as ECAs, private insurers, MDBs and the bank-to-bank secondary market, there are also a number of additional instruments that, although less frequently applied, serve a complementary role in managing credit risk in trade finance. These tools are generally used in more specific or tailored situations, and while they may not represent a large share of global trade finance activity, they provide valuable alternatives for risk mitigation.

Among these alternatives, cash collateral is a commonly used form of risk mitigation, especially when counterparties present higher credit risk. In such cases, banks may request advance deposits or collateral accounts to partially secure the exposure (Asmundson et al., 2011). Similarly, Irrevocable Reimbursement Undertakings (IRUs), often used within large banking groups, allow credit exposure to be reallocated internally, leveraging the risk appetite and country limits of different legal entities within the same group (BIS, 2014). Double confirmation, which involves two confirming banks in a single LC transaction, is another example of a layered risk mitigation technique. Though rarely used, this structure provides an additional layer of credit protection where risk concerns are particularly acute.

Moreover, banks may use funds or structured vehicles for risk participation, often involving non-bank financial investors. These structures allow institutional investors to gain exposure to trade finance assets, offering a relatively attractive risk-return profile compared to traditional fixed-income instruments (BIS, 2014). This growing interest has given rise to club deals and syndications, particularly for large or complex trade transactions, where risk is distributed among several banks or investors. A study by the Alternative Credit Council & Simmons & Simmons (2021) revealed that close to one-third of surveyed banks reported engaging with asset managers. Among those already collaborating with them, there has been a noticeable change in how banks

perceive asset managers as increasingly complementary to trade finance activities.

Securitisation is another noteworthy mechanism, whereby trade receivables are pooled and sold to investors in the capital markets. Although used more frequently in corporate finance than in traditional trade finance, securitisation offers banks a means of balance sheet relief and credit risk distribution, albeit with greater structuring complexity and regulatory scrutiny (Deutsche Bank et al., 2021).

Together, these additional instruments demonstrate the variety of tools available for managing credit risk in trade finance. Although their usage is more limited compared to ECAs, private insurers, MDBs and bank-to-bank participations, they contribute to a diversified and layered risk mitigation strategy, particularly in transactions involving high-risk obligors or jurisdictions.

To conclude this chapter, it is important to highlight that existing literature has examined, on the one hand, the reasons why banks reject trade finance transactions (e.g. due to low credit ratings, compliance burdens, or profitability constraints), and on the other hand, the role of CRMs in reducing risk, enhancing access to finance, and facilitating international trade. However, there is a notable gap in the literature regarding the barriers that prevent banks from using these mitigants. While CRMs have been shown to improve risk profiles and reduce capital consumption, the question of why banks often choose not to apply them remains largely unexplored.

This research gap gives rise to the central research question of this study: Why do banks not always use credit risk mitigants, even when such tools could enable them to approve transactions they would otherwise reject? By investigating the constraints behind this phenomenon, the following empirical chapters seek to address this overlooked dimension and contribute to a better

understanding of how the trade finance gap could be narrowed through more effective deployment of risk mitigation instruments.

Chapter 3
Methodology of Empirical Research with Trade Finance Bankers

3 Methodology of Empirical Research with Trade Finance Bankers

3.1 Research Design

An exploratory qualitative research design with an inductive approach was chosen as the most appropriate method to address the research questions. This methodology is well-suited for investigating complex phenomena where limited prior research exists and the problem has not been clear (Saunders et al., 2007). Given the limited availability of empirical studies on the factors influencing banks' decisions to apply or avoid credit risk mitigants in trade finance, an inductive approach enables a deeper investigation into the underlying reasons and motivations behind these decisions. The flexible nature of this approach facilitates the collection, analysis, and interpretation of qualitative data, allowing researchers to uncover trends in thought, identify barriers, and gain comprehensive insights into poorly understood issues (Mbaka & Isiramen, 2021).

Furthermore, the findings obtained in this study would have been impossible to achieve through quantitative methods or standardised instruments such as surveys. Due to the highly confidential and personal nature of the information shared, bankers would not disclose such insights in written form. The semi-structured depth interview setting provided a necessary level of trust and confidentiality, allowing participants to openly discuss their experiences and perspectives in ways they would not in a formal questionnaire. Managers are generally more willing to participate in interviews than to complete questionnaires, particularly when the interview topic is engaging and directly related to their professional responsibilities. Interviews offer them a chance to reflect on their experiences and discuss relevant issues without the need for written responses (Saunders et al., 2007).

Qualitative research emphasises exploration, discovery and inductive reasoning. This type of analysis starts with specific observations and gradually identifies broader patterns (Patton, 2014). The research follows an inductive approach inspired by grounded theory, which aims to construct theory from data rather than test pre-existing hypotheses (Corbin & Strauss, 2008). Grounded theory provides a structured yet adaptable framework for identifying patterns, developing themes, and generating theoretical insights based on real-world data. This methodology is particularly relevant in exploring how and why certain financial institutions opt not to apply credit risk mitigants in trade finance, enabling the discovery of new theoretical perspectives grounded in empirical evidence. The study seeks to provide a framework that explains the constraints banks face when employing credit risk mitigants, contributing to a deeper understanding of decision-making processes in trade finance.

The International Chamber of Commerce (ICC) has conducted an annual trade finance survey since 2008, categorising trade finance into three main segments: letters of credit, performance guarantees, and import/export loans. The volume across these categories varies significantly at the country level, with letters of credit emerging as the primary instrument in trade transactions involving emerging market economies. Given that rejections primarily occur in emerging markets, our study focuses on letters of credit, exploring the decision-making process of bankers when exporters request confirmation of letters of credit, but credit lines for the issuing bank are either fully utilised or non-existent. The qualitative approach allows for detailed exploratory accounts of how individuals perceive and navigate these challenges, providing a nuanced understanding of the factors influencing banking decisions in trade finance.

A preliminary fieldwork study was undertaken to assess the feasibility of the research. This involved a comprehensive review of secondary sources, including trade finance publications, newsletters, white papers, and articles pertaining to trade finance and credit risk mitigants. Reviewing existing literature helped identify knowledge gaps and refine the research focus,

ensuring that the study builds upon and contributes to the existing body of knowledge (Flick, 2018).

Furthermore, we engaged in informal discussions with six trade finance professionals representing various geographic regions to ascertain the potential scope of the forthcoming study. Among these professionals, four were senior bankers from leading global European and American banks, widely recognised as the most active institutions in trade finance. The remaining two participants represented medium-sized banks, one from Asia and the other from Africa, both of which play a significant role in trade finance despite their relatively smaller scale. These discussions provided preliminary insights into the challenges associated with the use of credit risk mitigants and highlighted key themes that would later inform the interview framework.

Additionally, I actively participated in market events organised by the International Trade and Forfaiting Association (ITFA), the leading trade finance association that serves as a representative body for banks deeply engaged in this domain. Attendance at these industry events facilitated direct engagement with key stakeholders, allowing for a better understanding of ongoing regulatory challenges, institutional constraints, and emerging trends in trade finance risk management (Silverman, 2020). These interactions helped validate the relevance of the study and refine the research design based on practical industry perspectives.

Preliminary fieldwork plays a crucial role in qualitative research by enabling the researcher to test the feasibility of the study, refine the research question, and develop a contextually grounded approach (Creswell & Poth, 2016). In this study, the preliminary phase not only confirmed the importance of the research topic but also ensured that the methodological approach was well-aligned with the realities of trade finance decision-making.

3.2 Sampling

A purposive sampling strategy was employed to select information-rich cases that could provide valuable insights to address our research questions (Patton, 2014). In this study, these cases were senior trade finance bankers with decision-making authority over the use of credit risk mitigants. Given that the trade finance gap is a global issue, I aimed "to obtain the broadest range of information and perspectives on the subject of study" (Kuzel, 1999, p. 37) from a diverse, international sample. The selection of participants was based on four key criteria, as shown in Table 4. First, all participants were required to be part of the bank's trade finance department, ensuring their direct involvement in credit risk mitigants and trade finance decision-making. Second, they had to hold senior positions, such as managing director, director, head of trade finance, or head of trade finance distribution, granting them the authority to approve or reject requests for the confirmation of letters of credit. Third, they needed to have decision-making authority over the use of credit risk mitigants, enabling them to provide firsthand insights into the factors influencing their application. Lastly, the study ensured geographical diversity by selecting participants from different regions, allowing for a comparative analysis of trade finance practices across various banking environments. These criteria contributed to a well-rounded and comprehensive understanding of the subject.

To identify banks actively engaged in trade finance, we initially contacted the largest global trade finance providers (Wass, 2021) and then expanded our selection to include banks active in different regions, identifying them among the members of the International ITFA. This process resulted in a final sample of 38 financial institutions, comprising both major global trade finance providers and significant regional banks. The sample distribution was as follows: 38% from Europe, 24% from the Americas, 19% from Asia, and 19% from the Middle East and Africa. Consequently, the sample demonstrates strong representativeness in volume, capturing a significant share of global trade finance activity.

Table 4: *Criteria for Selecting Participants in the Study*

Department	Trade Finance
Positions Level	Senior Position: managing director, director, head of trade finance, head of trade finance distribution
Decision-making authority	Approval/rejection of confirmations of letters of credit and the use of credit risk mitigants
Geographical distribution	Participants from different regions to ensure a global international sample

Source: Developed by the author

Table 5 provides some descriptive information about the participants. To maintain anonymity, each participant was assigned a pseudonym consisting of the letter B (representing a banker) followed by a number. Depending on their extent of activity, we classify banks as regional or global within their geographies. Four bankers were African Regional, two American Global, three American Regional, three Asian Global, four Asian Regional, six European Global, eight European Regional, four American Regional, three from the Middle East and one insurance broker. The inclusion of the insurance broker helped improve the understanding of key concepts related to credit and political risk insurance and provided an external perspective that enriched the design and focus of subsequent interviews with bankers.

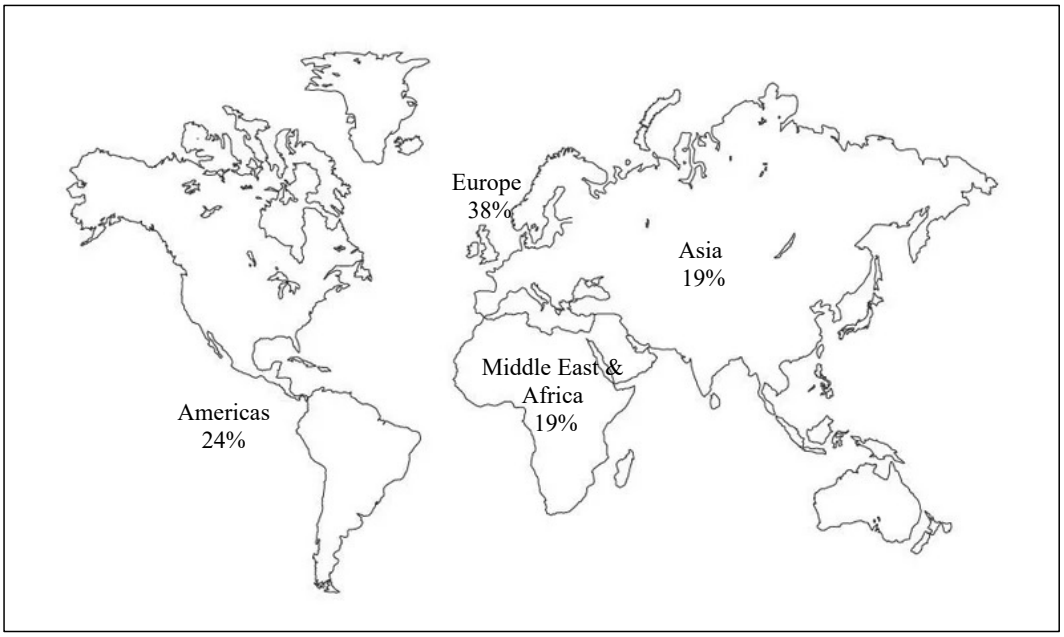
Table 5: *Descriptive Information About Participants*

Banker Pseudonym	Geographical Category	Gender	Overall Trade Finance Experience (years)	Experience in participant bank (years)
B 1	Asian Global	Female	>20	5-10
B 2	Asian Global	Male	>20	5-10
B 3	European Global	Female	15-20	10-15
B 4	European Global	Female	>20	>20
B 5	American Regional	Male	>20	15-20
B 6	African Regional	Male	>20	1-5
B 7	Asian Regional	Male	10-15	10-15
B 8	Asian Global	Female	>20	1-5
B 9	Latam Regional	Female	>20	1-5
B 10	Insurance broker	Female	>20	1-5
B 11	African Regional	Male	>20	1-5
B 12	European Regional	Male	>20	1-5
B 13	African Regional	Male	15-20	1-5
B 14	Asian Regional	Male	>20	10-15
B 15	European Regional	Female	10-15	10-15
B 16	European Global	Female	>20	5-10
B 17	African Regional	Male	>20	1-5
B 18	European Global	Male	>20	5-10
B 19	American Global	Male	5-10	1-5
B 20	Middle East Regional	Male	>20	1-5
B 21	Middle East Regional	Male	>20	1-5
B 22	American Global	Male	5-10	1-10
B 23	European Regional	Male	>20	1-5
B 24	American Regional	Female	>20	10-15
B 25	European Regional	Female	>20	1-5
B 26	European Global	Male	10-15	5-10
B 27	European Global	Male	5-10	1-5
B 28	European Regional	Male	>20	1-5
B 29	European Regional	Female	>20	1-5
B 30	European Regional	Female	>20	1-5
B 31	European Regional	Female	>20	15-20
B 32	Latam Regional	Female	>20	5-10
B 33	Latam Regional	Male	>20	>20
B 34	Latam Regional	Male	15-20	5-10
B 35	American Regional	Female	>20	10-15
B 36	Asian Regional	Female	>20	15-20
B 37	Asian Regional	Male	>20	15-20
B 38	Middle East Regional	Female	>20	1-5

Source: developed for this study by the author

All interviewees hold senior positions and have extensive experience in the trade finance industry. The majority (76.3%) have over 20 years of experience, demonstrating a deep understanding of trade finance operations and risk management. Additionally, 7.9% have between 15-20 years of experience, 7.9% between 10-15 years, and another 7.9% between 5-10 years in the sector. Most participants have had long tenure within their respective banks, with 76.3% having worked for over 20 years in their current institutions. This longevity ensures that their insights reflect not only institutional policies but also broader industry-wide developments. A total of 51,4% of the participants have spent between 1 and 5 years in their current banking roles. Regarding gender distribution, 55.7% of the respondents were male bankers, while 44.7% were female. Although the industry has traditionally been male-dominated, this relatively balanced representation highlights the increasing participation of women in senior trade finance roles.

Figure 13: *Geographical Distribution of the Sample*



Source: Map icon from The Noun Project; data from the authors' study

3.3 Data Collection

The primary source of data collection for this thesis consists of 38 semi-structured interviews with trade finance bankers. To complement these insights, I conducted participant observations at 37 practitioner workshops and conferences, which allowed for a broader understanding of industry practices and discussions. Additionally, various documents recommended by the interviewees supplemented the data from both interviews and observations. Some of these documents were publicly available, such as annual reports, websites, newspapers, and market magazines, while others were restricted to members of organisations such as ITFA and ICISA. Access to these restricted materials was granted through institutional permissions, further enriching the study's findings. The following sections provide a detailed explanation of the interview and observation processes.

3.3.1 Interviews

Interviews are the most efficient method for researchers to build a holistic view of a phenomenon from a deeper set of participants' knowledge, feelings, and thoughts (Lune & Berg, 2017). Our data were primarily obtained from semi-structured in-depth interviews and complemented by other sources such as annual reports, websites, newspapers, market magazines, and observations from market conferences and seminars. Including interviews and other data allowed me to conduct data triangulation to ensure the validity of the research (Yin, 2015).

Semi-structured interviews are widely used in qualitative research due to their flexibility and ability to generate in-depth insights. Unlike structured interviews, they allow researchers to follow a predetermined set of questions while also adapting the conversation based on participants' responses, enabling deeper exploration of emerging themes (Saunders et al., 2007). Semi-structured interviews also foster a more natural and interactive dialogue, helping to build rapport and encourage openness, which is particularly valuable when discussing

sensitive or complex topics. Additionally, they offer researchers the flexibility to probe further into unexpected but relevant areas, enhancing the richness and depth of the data collected (Robson, 2002).

Participants were identified and engaged during industry events hosted by the ITFA. During these events, the existence of this research was introduced, and the research objectives were briefly outlined through informal discussions. These personal interactions provided an opportunity to highlight the study's relevance to the trade finance sector and gauge initial interest from potential participants. This setting also allowed for a preliminary assessment of their willingness to contribute their expertise to the study.

Following these initial contacts, 50 potential participants were contacted via personalised follow-up emails, which provided more detailed information about the study's purpose, key topics to be covered, and the expected time commitment. However, due to scheduling constraints and the principle of thematic saturation (Corbin & Strauss, 2008), the final sample consisted of 38 participants. Interview dates were subsequently arranged with those who confirmed their availability and willingness to participate.

To ensure consistency and depth in the data collection process, an interview protocol was developed and is provided in Appendix *2*. This protocol guided the interviews and consisted of key elements to establish rapport with participants, ensure confidentiality, and gather relevant insights. Before conducting each interview, I prepared by researching the bank, its activities, and its trade finance products. This involved reviewing the bank's website, recent annual reports, and relevant press coverage of trade finance operations. Having a solid understanding of the institution beforehand is crucial to making the interview as productive and insightful as possible (Kervin, 1999). The data collection and ethical aspects of the research were approved by the Academic Committee of the Doctoral Program.

The interview began with a structured introduction, where participants were warmly welcomed, and their expertise was acknowledged as valuable to the study. They were assured of strict confidentiality, with explicit confirmation that neither their names nor their banks' names would be disclosed in the research or any related publications. Instead, banks were categorised based on geographical and operational scope (e.g., American, African, Asian, or European, with an additional classification of 'regional' or 'global'). Each participant was assigned a pseudonym (a number prefixed with 'B' for banker), and they were given the opportunity to confirm that their assigned category accurately reflected their institution's activities. Basic background information was then collected, including the participant's total years of experience in trade finance and their tenure at their current institution. The introduction concluded with a summary of the study's objectives and a reference to prior communications, such as discussions at the ITFA event or follow-up emails explaining the research in detail. Participants were then asked for verbal consent to proceed with the interview and to allow for audio recording.

The interview questions followed a semi-structured format, allowing flexibility to explore key themes while adapting to the participant's expertise and responses. In semi-structured interviews, a consistent set of topics is explored across all interviews. Once the predefined questions have been addressed, participants have the opportunity to introduce any additional points they consider relevant to the discussion. Moreover, researchers can pose follow-up questions to gain further clarification or to explore specific issues in greater depth (Corbin & Strauss, 2008).

A predefined set of 10 questions was used to guide the discussion, covering topics such as the decision-making process for confirming letters of credit, handling situations where credit lines were unavailable or fully utilised, the rationale for declining letters of credit confirmations, and perspectives on different credit risk mitigants, including export credit agencies, private insurers, multilateral development banks, and the secondary bank market. Given the dynamic nature of these discussions, additional questions were introduced as

needed to explore emerging themes in greater depth. The sequence of questions was also adjusted to maintain a natural conversational flow.

The interview concluded with a closing section, where participants were thanked for their time and insights. The confidentiality of their responses was reiterated, and they were informed that they would receive a copy of the published article once available. Participants were also invited to share any final observations or additional insights that they felt were relevant to the study. This structured yet flexible approach ensured that the interviews remained comprehensive while allowing participants the freedom to elaborate on critical aspects of trade finance credit risk mitigation use.

The interviews were in-depth and semi-structured, ranging from 50 to 90 minutes. During the interviews, the participants were asked to describe their analysis and decision-making process of credit risk mitigant selection before rejecting the confirmation of a letter of credit. Although there were ten guiding questions, the conversation remained open and aimed to encourage the interviewee to speak freely. Other questions emerged organically during each interview. The interviews were conducted face-to-face, as this format enables the interviewer to seek clarification when necessary and promptly introduce follow-up questions (Saunders et al., 2007). After number 34, similar answers were obtained, and the data did not generate new insights, signalling good evidence of saturation (Corbin & Strauss, 2008). Despite this, I conducted four additional interviews to confirm saturation.

The interviews took place at times and in locations convenient for the participants. A total of twenty-five interviews were conducted in London, where many banks from different regions have branches or offices, often housing the trade finance distribution department, among other areas. Additionally, two interviews were conducted in Madrid, two in New York, two in Geneva, and seven in Budapest during an ITFA annual meeting. The ITFA annual conference provided an excellent opportunity to interview bankers whose institutions did not have trade finance departments in London or any of

the planned interview locations. As the majority of ITFA members attend these events, it was particularly useful for reaching participants based in more remote locations. All interviews were conducted in English, as all interviewees, regardless of their nationality, had a strong command of the language. Conducting the interviews in English also facilitated the transcription process.

The interviews for this study began in September 2019 and were initially conducted until February 2020, when the COVID-19 lockdown was imposed. Many interviews had been scheduled and tentatively agreed upon, but due to the highly regulated nature of banking, strict compliance policies, and confidentiality concerns, no banks were willing to conduct interviews online during the pandemic. Additionally, due to the delayed return-to-office policies in London following COVID-19, many bankers only resumed in-person work towards the end of 2021. As a result, the remaining interviews were resumed in 2022, concluding in April. Despite the extended duration of the interviews, our analysis did not reveal differences attributable to the timing before or after the pandemic.

3.3.2 Observation

In addition to semi-structured interviews, observation played an important role in data collection for this research. The observational component was carried out at industry events, conferences, and workshops organised by key industry associations such as the ITFA, ICISA, and the Berne Union; international bodies like the ICC and WTO; credit risk mitigant providers such as CESCE and Coface; leading banks like Santander; and law firms specialising in trade finance, including Sullivan & Worcester UK LLP and Cuatrecasas, among others. A detailed list of the events attended is included in Appendix 1.

The selection of physical events for observation was guided by specific criteria: the primary focus had to include discussions on trade finance credit risk mitigants, and at least one of the speakers or panellists had to be a representative

from either the trade finance department of a bank or a mitigant provider. Additionally, logistical factors such as cost, accessibility, and geographic location influenced the selection process. As a result, the researcher attended a total of eight events in the United Kingdom, five in Spain, two in Switzerland, two in Portugal, and one in Hungary. Since the COVID-19 pandemic, online events have become increasingly prevalent, enabling broader engagement while reducing travel constraints. In total, 19 online events were attended, bringing the total number of observed events to 37.

The role of observation in this study was multifaceted. Firstly, attending these events was instrumental in conducting preliminary fieldwork to assess the viability of the research. By engaging with industry professionals and listening to discussions, the researcher was able to determine whether the topic of trade finance credit risk mitigants was relevant for the trade finance gap and warranted further investigation. Once the research focus was confirmed, participation in these events became a critical avenue for identifying potential interview participants. Meeting trade finance professionals in person facilitated initial conversations, allowed for the presentation of the research objectives, and encouraged potential participants to take part in formal interviews.

Moreover, industry events provided opportunities for informal discussions with professionals who were unable or unwilling to participate in formal interviews. These conversations, which often took place during networking sessions, coffee breaks, and post-event receptions, enriched the research. Such informal interactions were particularly useful in understanding the nuances of credit risk mitigation strategies and the practical challenges that trade finance professionals face.

Beyond networking and recruitment, observation at these industry events contributed significantly to the researcher's understanding of the broader trade finance landscape (Patton, 2014). By attending panel discussions, keynote speeches, interactive Q&A sessions, and case study presentations, I gained

firsthand exposure to the latest trends, regulatory changes, and market developments affecting credit risk mitigants. This contextual knowledge proved invaluable in framing interview questions, ensuring they were relevant and well-informed. Additionally, the familiarity with industry discourse enabled me to conduct interviews more effectively, as participants were more comfortable discussing complex topics with an interviewer who demonstrated domain expertise. Consequently, this contributed to richer, more productive interviews and ensured that the data collected was both insightful and practically grounded.

Another crucial benefit of attending these industry events was the opportunity to observe the dynamics between different stakeholders in trade finance. The interactions between banks, insurers, regulatory bodies, and trade associations provided key insights into the underlying power structures, the decision-making processes involved in adopting credit risk mitigants, and the challenges related to their implementation. This helped me to contextualise interview responses within a broader industry framework, reinforcing the validity of the findings.

Observing industry events also facilitated the identification of emerging themes within trade finance (Yin, 2015). Presentations, panel discussions, and informal networking highlighted key concerns and innovative practices that were shaping the industry. These insights informed the formulation of follow-up interview questions and guided the direction of future research. By staying attuned to emerging discourse, I was able to ensure that the study remained relevant to contemporary industry developments.

Furthermore, observation provided a means of triangulating data collected through interviews. Comparing insights from event observations with interview responses helped verify or challenge information, thereby enhancing the validity and reliability of the research findings. In cases where discrepancies arose, additional secondary data analysis was pursued to clarify inconsistencies, ensuring a robust research design.

An important impact of the observational component was the increased diversity and global reach of the study. Attending international conferences allowed me to engage with professionals from different regions, broadening the sample to include banks from various markets. This global perspective strengthened the findings by capturing variations in the use and perception of credit risk mitigants across different banking institutions, regulatory environments, and cultural contexts. Additionally, observing discussions at these events allowed me to compare regional differences in attitudes towards trade finance risk management, providing further depth to the analysis.

Furthermore, participation in these events enhanced my credibility within the trade finance community. Repeated attendance at key conferences facilitated familiarity with industry stakeholders, which, in turn, improved access to valuable sources of information. This established a level of trust between the researcher and participants, encouraging more candid discussions both within formal interviews and informal interactions. Additionally, attending these events reinforced the researcher's ability to pose more precise and informed follow-up questions during interviews, ultimately leading to more substantive and nuanced responses from participants.

Throughout the conferences, I maintained a detailed diary documenting all key discussions, topics addressed, and emerging themes. Field notes were taken during presentations, panel discussions, and informal interactions, allowing for a structured reflection of the most relevant insights. At the conclusion of each event, I systematically recorded the names and affiliations of individuals engaged in conversations, summarised the information exchanged, and noted initial impressions. This practice not only facilitated better recall of essential details but also enabled cross-referencing with interview data to enhance the coherence of the study. Additionally, keeping a structured record of personal reflections helped identify patterns in industry discourse, revealing shifts in perspectives over time and contributing to a deeper understanding of the evolving trade finance landscape.

Overall, observation as a data collection method significantly complemented the primary interview-based approach. It facilitated participant recruitment, enriched the researcher's contextual knowledge, and provided access to informal but valuable insights. The integration of observation with interview data ensured a more comprehensive understanding of the factors influencing the adoption and utilisation of credit risk mitigants in trade finance. By engaging directly with the trade finance community, I was able to gain a holistic view of the subject matter, resulting in a more robust and empirically grounded study.

3.4 Analysis

I conducted a reflexive thematic analysis (reflexive TA) to identify, analyse, and report patterns within the participants' responses. This qualitative research method emphasises the active role of the researcher in interpreting data and generating themes. Unlike other forms of thematic analysis that rely on predefined coding frameworks or codebooks, reflexive TA is a flexible and iterative process in which coding evolves dynamically as the researcher engages with the data. This approach acknowledges that themes are not passively discovered but actively constructed through the researcher's interpretative lens. Reflexive TA is particularly useful for exploring complex and nuanced meanings within qualitative data, allowing for a deep engagement with participants' experiences and perspectives. It is widely used in social sciences and applied research due to its adaptability and focus on meaning-making rather than mere data summarisation (Braun, V. & Clarke, 2006, 2019, 2021).

For the analysis, V. Braun and Clarke's (2006, 2021) six phases of reflexive thematic analysis were followed through an iterative process, involving constant movement back and forth within the dataset. After becoming familiar with the transcribed data, I generated initial codes to identify all data relevant to our research question. I then clustered the codes to initiate the identification of themes and sub-themes. The codes were grouped into sub-themes, and the

sub-themes were organised into themes. These themes were compared with the existing literature and developed to provide unique insights into the research. The analysis process for each of the six phases is described below.

Table 6: *Description of the Phases of the Reflexive TA*

Phase	Description of the process
1. Familiarising with the dataset	Transcribing interviews, cleaning data, organising transcription documents, taking initial notes, and reading and re-reading the data to immerse in its content.
2. Coding	Systematically coding the data, collating data under relevant codes, generating an initial list of codes, refining code names, and creating preliminary diagrams to identify emerging patterns.
3. Generating initial themes from coded and collated data	Grouping codes into potential themes, identifying overarching themes and subthemes, and developing an initial thematic structure with 3 themes.
4. Developing and reviewing themes	Refining the names and definitions of themes and subthemes, ensuring coherence and consistency, and creating an initial thematic map to visualise relationships between themes.
5. Refining, defining and naming themes	Conducting further analysis to refine themes and subthemes, finalising the thematic framework with well-defined themes, subthemes, and codes, and ensuring themes accurately represent the dataset.
6. Writing Up	Selecting representative quotes to illustrate themes, integrating findings into the final report, and composing a coherent narrative that aligns with the research questions and theoretical framework.

Source: Developed by the author following guidelines by V. Braun and Clarke, 2006

3.4.1 Phase 1. Familiarising with the Dataset

In this study, the analysis begins with prior knowledge of the data, as the researcher conducting the analysis is the same person who conducted the interviews. This means the analysis starts with an initial understanding of the main contents. In this first phase of familiarisation with the data, the first step is the transcription of the interviews, which is also an excellent way to begin engaging with the data (Yin, 2015).

Interview transcriptions were carried out concurrently with the data collection process (Creswell & Poth, 2016). To facilitate transcription, SONIX, an online platform that converts audio files into text, was used. The accuracy of the automated transcription ranged between 70% and 80%, depending on the quality of the recording and the clarity of the interviewee's speech. Given these limitations, a data cleaning process was undertaken, involving a thorough manual review to correct errors and refine the transcriptions for accuracy. SONIX allows users to listen to the audio while highlighting the corresponding text, making it relatively straightforward to identify and correct mistakes. Additionally, the platform enables users to pause the audio, make adjustments, and resume playback when ready.

The data cleaning process not only ensured transcription accuracy but also served as a valuable step in reflecting on the content and identifying emerging themes (Wengraf, 2001). The dataset consisted of 38 interviews, totalling 2470 minutes of recorded material. This was highly time-consuming, but at the same time, it helped develop a deeper understanding of the data. As Robson (2002) notes, transcribing one hour of recorded material can take up to ten hours. Therefore, transcribing and refining the interviews as they were conducted was crucial to avoid an overwhelming workload (Saunders et al., 2007). As the transcriptions were being completed, notes were taken on ideas of interest for the analysis or for potential (Braun, V. & Clarke, 2006).

Once an interview was transcribed and cleaned, it was saved as a separate Word document, named according to the reference code assigned to each bank. The naming convention followed a structure of "B" followed by a number, along with an indication of the bank's geographical category and whether it was regional or global. For instance, a transcribed interview file might be labelled as "B1 Asian Global." Upon completion of transcription, the corresponding audio recording was permanently deleted, as communicated to participants.

3.4.2 Phase 2. Coding

Once the transcription was completed, I conducted systematic coding, which is the process of assigning specific codes or labels to a relevant segment of the dataset (Guest et al., 2012). An inductive coding approach was used without the intention of fitting the data into pre-existing codes.

Due to the large amount of data, the coding process was slow, and at times, I had to take breaks to clear my mind, regain perspective, and discuss the codes with my supervisor. Initially, my codes were very long phrases, but I gradually refined them, making them more concise. After this coding phase, I ended up with a first list of 46 codes, which I further refined due to overlaps and emerging questions. Reflexive TA avoids codebooks, as it views coding as an organic and open process (Braun, V. & Clarke, 2019).

Coding was conducted manually. The use of software for qualitative data analysis does not inherently enhance the quality of the analysis. In fact, many foundational qualitative studies were conducted without such tools (Corbin & Strauss, 2008). While software can assist with organising and retrieving coded data, the analytical process itself remains dependent on the researcher's interpretation and engagement with the material. I manually noted potential codes in the text, highlighting phrases that represented them, while simultaneously recording them in an Excel sheet. In the spreadsheet, I tracked the frequency of each code and copied the corresponding phrases. I ensured that all data relevant to the research questions were coded (Braun, V. & Clarke, 2021). During the coding process, I began identifying several patterns. As I coded, I also drafted diagrams with ideas to later develop thematic maps (Braun, V. & Clarke, 2006).

3.4.3 Phase 3. Generating Initial Themes from Coded and Collated Data

Once all the data had been coded and collated, I began refining the names of the codes and exploring how they could be combined into themes and subthemes. This phase involved identifying relationships between codes, grouping them, and determining how they fit within broader thematic structures (Braun, V. & Clarke, 2006). Rather than simply summarising the data, I engaged in an active, iterative process of interpretation, searching for overarching topic areas that could encapsulate the coded data meaningfully.

As I reflected on the codes I had created, I repeatedly moved between the data and my developing analysis, deepening my understanding of patterns and shaping the emerging themes. This process was not linear but rather dynamic and reflexive, allowing me to explore multiple ways of organising the data. I systematically listed potential themes and subthemes in an Excel sheet, moving codes between categories, creating visual maps, and continuously revisiting the data to refine my thematic framework. The process of generating initial themes was exploratory and inductive, guided by a commitment to allowing themes to emerge from the data rather than imposing pre-existing structures (Braun, V. & Clarke, 2006).

Three main themes soon emerged as the codes naturally clustered around three key areas: (1) codes related to technical aspects, (2) codes concerning bank level, and (3) codes focused on banker level.

3.4.4 Phase 4. Developing and Reviewing Themes

At this stage, I conducted a more detailed review of the themes to ensure they accurately represented the coded data and reflected meaningful patterns. This process involved revisiting the collated data within each theme to verify coherence and checking whether the themes worked in relation to the entire

dataset. As V. Braun and Clarke (2006) emphasise, this phase requires a balance between staying true to the data and developing a framework that captures its broader meaning.

After grouping the codes into the three identified themes, I found that each theme contained a substantial number of codes. To refine the thematic structure, I assessed how these codes related to one another and whether they could be meaningfully grouped into subthemes. This iterative process allowed for a clearer organisation of the data and helped to ensure that each theme captured a distinct aspect of the phenomenon under study.

In Theme 1, technical reasons, I noticed that the codes formed two distinct clusters. Some codes consistently related to anti-money laundering (AML) issues, while others focused more on accounting and financial considerations. Given these clear distinctions, I structured this theme into two subthemes: one related to AML regulations and another addressing accounting-related concerns.

Theme 2, bank-level factors, contained the highest number of codes, covering a wide range of institutional aspects. To bring structure to this theme, I identified key subthemes that emerged from the data, including resource availability, compensation schemes, IT systems, the professional background of managers, and their knowledge of trade finance. Some codes did not immediately fit into a specific subtheme, so I temporarily placed them in a miscellaneous category, recognising that further refinement would be necessary in later stages.

Theme 3, banker-level factors, also required further subdivision. The codes within this theme reflected two main patterns: one related to the personality traits of the bankers and another concerning their level of professionalism and preparedness. These distinctions helped refine the overall thematic structure by differentiating personal characteristics from professional competencies.

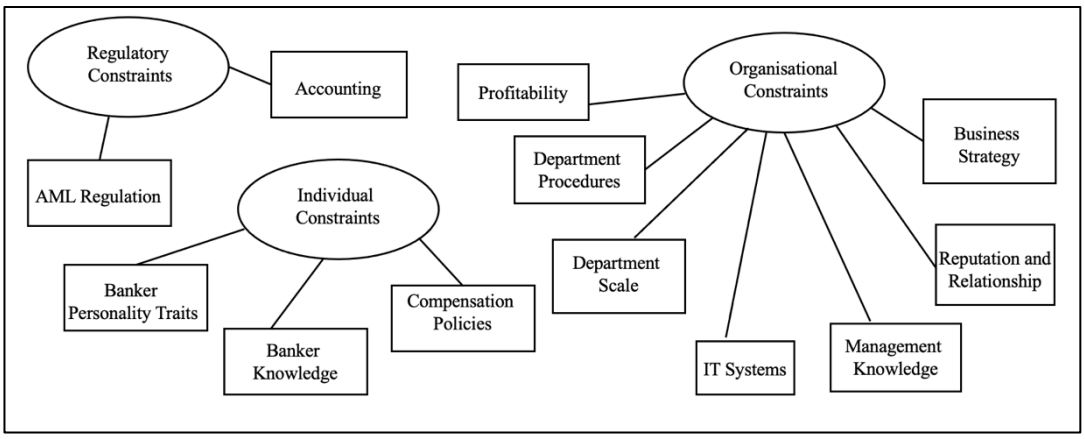
Throughout this phase, I actively moved between the dataset, the coded extracts, and the developing themes, ensuring that each theme was internally coherent and distinct from the others. This process involved both refining the names of themes and subthemes and considering whether any themes needed to be merged, separated, or redefined. By the end of this phase, I had developed a structured set of themes that provided a comprehensive and meaningful interpretation of the data, ready to be further defined and named in the next stage of the analysis (Braun, V. & Clarke, 2006).

3.4.5 Phase 5. Refining, Defining and Naming Themes

In this phase, I further refined, defined, and named the themes to ensure they accurately and clearly represented the patterns in the data. According to V. Braun and Clarke (2006), this stage involves a deeper analytical engagement with each theme, moving beyond simply describing the data to articulating the underlying meaning of each theme and its contribution to the overall research question. It also requires ensuring that each theme is coherent, internally consistent, and distinct from the others.

As part of this process, I revisited the themes and subthemes identified in the previous phase and refined their names to capture their content better. The initial broad themes were renamed to reflect their conceptual focus more precisely. Theme 1 was renamed Regulatory Constraints to emphasise the influence of regulatory requirements and compliance obligations. Theme 2 became Organisational Constraints, highlighting the institutional and structural factors affecting the subject of study. Theme 3 was renamed Individual Constraints, reflecting the personal and professional factors that shaped individual behaviour and decision-making.

Figure 14: *Thematic Map Showing Themes and Sub-themes*



Source: Developed for this study by the author

The subthemes were also refined to ensure they accurately captured the nuances of the data. Figure 14 illustrates the final thematic framework, showing how the subthemes are organised within each of the three overarching themes. This diagram helped to ensure that the themes were clearly delineated and that they effectively captured the relationships between different elements of the dataset. Throughout this phase, I engaged in ongoing reflection on the thematic structure, ensuring that the themes were both analytically meaningful and closely grounded in the data. This process remained iterative, with constant movement between the themes, coded extracts, and overall dataset to ensure coherence and depth in the final thematic framework (Braun, V. & Clarke, 2006).

3.4.6 Phase 6. Writing up

The final phase of the reflexive thematic analysis involved synthesising the findings into a coherent and compelling narrative. According to V. Braun and Clarke (2006), writing up is not merely a reporting exercise but an integral part of the analysis itself, requiring the researcher to articulate the meaning and significance of the themes in relation to the research question. This phase

involved weaving together the themes, subthemes, and supporting data extracts to provide a rich and detailed account of the patterns identified in the dataset.

In this stage, I aimed to present the themes in a structured and logical manner, ensuring that each theme was supported by illustrative data extracts and interpreted in relation to the broader context of the study. The process required a balance between providing sufficient detail to accurately represent the data while maintaining a clear and concise analytical narrative. Each theme was discussed in depth, highlighting the key insights and their implications.

Throughout the writing process, I continuously referred back to the dataset to ensure that my interpretations remained grounded in the data. Reflexivity remained essential as I critically engaged with the themes, considering alternative explanations and ensuring that my analysis was robust and credible. Chapter 5 presents the findings in detail, providing a comprehensive account of the identified themes and their significance within the research context. Through this discussion, in chapter 6, the study aims to offer meaningful insights into the topic, contributing to a deeper understanding of the patterns and dynamics explored in the analysis.

3.5 Trustworthiness of the Study

Trustworthiness is a crucial aspect of qualitative research, ensuring the rigour and quality of the findings. Since qualitative research relies on the interpretation of data, establishing trustworthiness is essential to demonstrate that the study's conclusions are credible and reliable. The most widely used framework for assessing trustworthiness is the one developed by Lincoln and Guba (1985), which consists of four key criteria: credibility (parallel to internal validity), transferability (parallel to external validity), dependability (parallel to reliability), and confirmability (parallel to objectivity).

3.5.1 Credibility

Credibility, which corresponds to internal validity in qualitative research, is essential to ensure that the findings accurately represent the reality of the studied phenomenon. One of the key factors contributing to credibility is rigour (Patton, 2014). A credible study is one in which data collection and interpretation are conducted rigorously, ensuring that the results reflect the real-world context of the subject under investigation (Yin, 2015).

To achieve credibility, this study followed a systematic and rigorous approach throughout the research process. The interviews were conducted using a structured protocol, ensuring consistency in data collection. The transcription process was carried out meticulously, maintaining accuracy in the recorded data. Moreover, the thematic analysis was conducted following V. Braun and Clarke's (2006, 2021) six-phase framework, providing a structured and transparent methodology for data interpretation.

Prolonged engagement with participants is another important factor in establishing credibility. As Guba and Lincoln (1985) and Maxwell (2013) highlighted, when researchers spend significant time with participants, they are less likely to alter their behaviour or responses and are more inclined to be open and comprehensive in what they share. This study ensured sufficient interaction with participants through interviews and observed industry events to foster trust and encourage authentic and meaningful insights.

Triangulation further strengthens credibility by reducing the risk of bias and increasing the depth of the findings. In this study, data triangulation was achieved by corroborating the findings with relevant industry documents, particularly for those related to regulatory aspects, ensuring alignment with official policies and standards. Additionally, regulatory findings were also triangulated with the information gathered at observed industry events, where highly relevant insights into sector dynamics were obtained. For findings concerning organisational and individual constraints, academic literature was

consulted to validate and contextualise the results within existing research. Investigator triangulation was also incorporated to enhance rigour and trustworthiness (Patton, 2014). I carried out the initial coding and thematic mapping, which were subsequently reviewed by my supervisor. His feedback helped validate and refine the findings to ensure analytical rigour and clarity. This collaborative approach helped ensure that the interpretation remained grounded in the data and that alternative perspectives were considered.

3.5.2 Transferability

Transferability is widely recognised as a key quality criterion in qualitative research and is considered the equivalent of external validity in quantitative research. Originally introduced by Lincoln and Guba (1985), this concept refers to the extent to which a study's findings can be applied to different contexts, settings, or participant groups.

To maximise diversity among participants, purposive sampling was adopted, ensuring representation from different regions of the world (Patton, 2014). By incorporating a wide range of perspectives, this approach enhances transferability by capturing insights from various professional backgrounds, regulatory environments, and organisational structures. Including participants from diverse geographical areas allows the study to identify patterns that may be relevant across multiple settings, thereby strengthening the applicability of the findings beyond the immediate research context. Through these 38 interviews, a conceptual framework is developed to explain the reasons why banks do not always use credit risk mitigants in trade finance. These findings aim to contribute to knowledge transfer (Lincoln & Guba, 1985) and are also expected to stimulate debate at both the bank level and among policymakers. The practical implications section outlines the key implications and recommendations of this study for banks, risk mitigation institutions, and regulators.

To enhance transferability, this study provides thick descriptions of the research context, methodology, and findings, allowing readers to assess whether the results are applicable to their own settings (Creswell & Poth, 2016). Although this study focuses on the reasons why credit risk mitigants are not always used for the approval of confirmed letters of credit, similar findings could be extrapolated to other trade finance instruments. Additionally, several organisational and individual-level constraints identified in this study may also be applicable to other business departments within banks.

3.5.3 Dependability

According to Lincoln and Guba (1985), dependability refers to the consistency and stability of the research process and findings over time. While qualitative research acknowledges the dynamic nature of social phenomena, dependability ensures that the study's processes are transparent, well-documented, and replicable under similar conditions.

Given the sensitive nature of some topics discussed in the interviews, measures were implemented to mitigate participant bias and ensure dependability (Saunders et al., 2007). Recognising that participant selection can influence the findings, a targeted sampling approach was adopted. Rather than issuing a general call for participation, which could lead to self-selection bias, participants were recruited through direct outreach. This method ensured a diverse yet relevant sample, increasing the credibility of the insights while maintaining control over participant composition.

To further enhance dependability, confidentiality was assured from the outset. Participants were explicitly informed that their names and institutions would remain anonymous, allowing them to share their perspectives without concerns about professional repercussions. This assurance of anonymity was particularly important given the regulatory and strategic nature of the discussions, where

full transparency might have been compromised if participants feared disclosure.

Building rapport and trust was also a crucial strategy in fostering open and honest discussions. My background as a former trade finance banker helped create a shared professional understanding, allowing participants to feel more comfortable discussing industry-specific challenges. This familiarity with trade finance terminology and practices also facilitated clarifications and follow-up questions, ensuring the depth and accuracy of responses.

Additionally, the interview process itself was designed to minimise bias. A semi-structured approach allowed for flexibility in probing deeper into certain topics while maintaining consistency across interviews. Participants were encouraged to share both positive and negative experiences, reducing the risk of social desirability bias. Reflexivity was maintained throughout the research process, with the researcher continuously reflecting on their own positionality and potential biases in interpreting the data.

While some residual biases may have persisted due to the nature of qualitative research, these methodological safeguards strengthened the robustness, reliability, and credibility of the findings. By implementing these measures, the study provides valuable insights into the barriers to CRM adoption, ensuring that the results are both contextually grounded and analytically rigorous.

3.5.4 Confirmability

Confirmability refers to the extent to which the findings of a study are shaped by the data rather than by researcher bias, assumptions, or personal interpretations (Lincoln & Guba, 1985). Several strategies were employed to enhance confirmability. One of the most important is maintaining an audit trail, which involves systematically documenting all decisions made throughout the research process, including data collection, coding, and analysis (Lincoln &

Guba, 1985). Reflexivity is also essential, requiring researchers to critically examine their own biases and positionality, often through reflective journals or memos (Berger, 2015).

Another strategy is triangulation, which was previously detailed when referring to credibility. By comparing different perspectives, triangulation helps ensure that interpretations are not solely influenced by the researcher's subjective viewpoint (Patton, 2014). Additionally, as already mentioned, verbatim quotations from participants are frequently included as direct evidence supporting the analysis and to reinforce transparency in interpretation (Guest et al., 2012).

While complete objectivity is unattainable in qualitative research, confirmability ensures that findings are well-grounded in the data, systematically derived, and transparent, ultimately strengthening the credibility and rigour of the study.

Chapter 4
Findings. Data Analysis

4 Findings. Data Analysis

This chapter presents the key findings of the study. It is organised into three main sections, each corresponding to a thematic area that emerged from the data analysis: regulatory**,** organisational**,** and individual constraints. Within each section, sub-themes are explored to provide a more detailed understanding of the factors that influence the use, or non-use, of credit risk mitigants (CRMs) in trade finance operations. Figure 15, developed as a result of the thematic analysis process, presents a thematic map that summarises the main themes, sub-themes, and related codes, along with the percentage of participants who provided supporting evidence for each sub-theme.

Most participants reported receiving a high volume of trade finance proposals from issuing banks in developing regions, particularly in Asia and Africa. However, confirming letters of credit (LCs) from certain countries, most notably Bangladesh, Pakistan, Nigeria, and Egypt, was frequently cited as problematic. These findings are consistent with those of DiCaprio et al. (2016), which identify Asia and Africa as the regions with the most significant trade finance gaps.

When asked about CRMs, few participants acknowledged awareness and utilisation of all four categories of providers: private insurers, multilateral development banks (MDBs), export credit agencies (ECAs), and the bank-to-bank market. Surprisingly, only one banker reported actively using products from all four providers:

> "*We have approval from around 35 insurance companies, participate in six MDB facilitation programs, utilise short-term ECA programs in countries with commercial banking, and sell risk in the secondary bank market. We evaluate all options and opt for the most profitable one*" (B26).

In contrast, several regional banks, two in the Middle East, two in Latin America, and two in Europe, lack the internal infrastructure and expertise needed to implement these mitigants, resulting in the rejection of LCs when credit limits are unavailable.

The study also identified varying levels of engagement with different CRM instruments. Among the participants, 48% were active users of the bank-to-bank market, while 23% reported occasional use. With regard to private credit insurance, 42% of respondents used it regularly, and 10% on a sporadic basis. Awareness of MDBs' trade facilitation programmes stood at 34%, but only 26% actually used them. The lowest levels of adoption were found in relation to ECAs, with just 15% utilising their short-term products, likely due to the common perception of these agencies as providers of long-term solutions.

No clear patterns emerged linking CRM usage to institutional characteristics such as bank size (regional vs global), geographical location, or the personal attributes of interviewees (gender or years of experience). Rather than following a uniform strategy, banks appear to adopt or avoid specific CRMs based on a mix of contextual and structural factors.

The findings align with those of previous studies, showing that regulatory reasons are key drivers in the approval or rejection of letter of credit confirmations (Auboin and DiCaprio, 2017; DiCaprio and Yao, 2017; Kim *et al.*, 2021). However, one of the main contributions of this study lies in its identification of additional, often overlooked, factors that shape the use of CRMs. Through the interviews, it became evident that decision-making is not solely influenced by regulatory requirements, but also by organisational and individual-level drivers. These insights, drawn directly from practitioners' experiences, reveal the complexity of CRM adoption and provide a more holistic understanding of the barriers at play. Accordingly, the findings were categorised into the three themes introduced earlier: regulatory, organisational, and individual constraints. Each of these is examined in detail in the sections that follow.

Figure 15: *Summary of Findings*

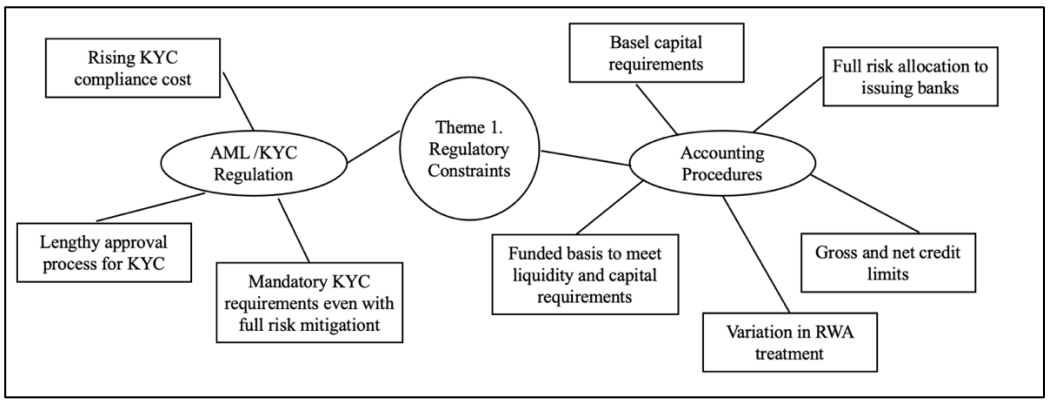
Theme 1: REGULATORY CONSTRAINTS		
Sub-themes	%	Codes
AML Regulation	46%	- Rising KYC compliance cost - Lenghty approval process for KYC - Mandatory KYC requirements even with full risk mitigation
Accounting	38%	- Basel capital requirements - Full risk allocation to issuing banks - Gross and net credit limits - Variation in RWA treatment - Funded basis to meet liquidity and capital requirements
Theme 2: ORGANISATIONAL CONSTRAINTS		
Sub-themes	%	Codes
Profitability	43%	- High prices of CRMs - Reduction in net profit
Department Procedures	38%	- Lack of standardised internatl procedures - Approval bureaucratic hurdles - Approval bottlenecks - Challenges in developing new internal procedures - Difficult to manage internal politics
Department Scale	30%	- Time limitations for exploring CRMs - Small trade finance team - Limited back office resources
IT Systems	11%	- Outdated booking systems - Technical issues to register CRMs
Business Strategy	46%	- Conservative risk approach - Low strategic focus on trade finance
Management Knowledge	35%	- Limited awarenes of the benefits of CRMs - Lack of technical understanding of CRMs
Reputation and Relationship	11%	- Trust partnership with providers
Theme 3: INDIVIDUAL CONSTRAINTS		
Sub-themes	%	Codes
Compensation Policies	32%	- Disparities in bonus recognition - Profit-sharing with other departments
Banker Knowledge	35%	- Lack of familiarity with certain CRMs - Absence of prior experience with CRM providers
Banker Personality Traits	38%	- Job security concerns - Limited networking skills - Reluctance to invest effort

Source: developed for this study by the author based on data from the interviews

4.1 Regulatory Constraints

One of the key themes that emerged during the analysis of the data was regulatory constraints, which significantly impact the use of credit risk mitigants in trade finance operations. Banks must navigate stringent compliance requirements, particularly in anti-money laundering (AML) and know-your-customer (KYC) regulations**,** as well as accounting and capital requirements, as shown in Figure 16. These regulatory frameworks, while designed to ensure financial integrity, often create barriers to trade finance by increasing compliance costs, limiting correspondent banking relationships, and influencing the selection of risk mitigation strategies. This section explores how these constraints affect trade finance decisions, highlighting insights from industry professionals and empirical evidence.

Figure 16: *Thematic Conceptual Map Theme 1*



Source: Developed for this study by the author

4.1.1 Anti-money Laundering and Know Your Customer Regulations

The informants explained that letters of credit are exchanged between banks using an encrypted messaging system known as SWIFT (Society for Worldwide Interbank Financial Telecommunication). SWIFT provides a standardised and

secure means of communication for financial institutions across the globe, ensuring the authenticity and integrity of transaction-related messages. However, before two banks can engage in correspondence through SWIFT, they must have their SWIFT keys exchanged and approved, a process that is now contingent upon fulfilling rigorous KYC requirements.

The KYC process is a regulatory framework designed to prevent illicit financial activities such as money laundering, fraud, and terrorist financing. Financial institutions must conduct extensive due diligence on their counterparties before establishing a formal banking relationship. This process involves a thorough exchange of documentation to verify the identities of both individual and corporate customers, gain a comprehensive understanding of their banking activities, confirm the legitimacy of fund sources, and assess potential risks associated with the customer. Additionally, banks must continuously monitor financial transactions to identify and report any suspicious activities in compliance with AML regulations. KYC policies also mandate the implementation of internal risk management strategies to classify customers based on their risk profiles and apply enhanced due diligence procedures where necessary.

Failure to comply with KYC regulations can have severe consequences for financial institutions, including fines, reputational damage, and, in some cases, restrictions on their ability to operate in certain jurisdictions. In response to the 2008 financial crisis, regulatory bodies worldwide imposed stricter KYC and AML requirements to enhance the transparency and stability of the financial system. While these measures were intended to curb financial crimes, they also introduced challenges for banks engaged in trade finance. One significant finding was the increased difficulty in confirming letters of credit when the issuing bank is a new counterparty with whom no prior activity has been conducted. In such cases, no credit line has been established, nor have SWIFT keys been exchanged, making the due diligence process considerably more time-consuming and resource-intensive.

This finding is supported by empirical evidence from a study conducted by Auboin & DiCaprio (2017), which analysed data from an Asian Development Bank (ADB) survey involving 791 firms. The study found that 90% of respondents faced obstacles in completing trade finance transactions due to the stringent KYC and AML requirements, as well as the associated compliance costs. The findings underscore the unintended consequences of heightened regulatory scrutiny, which, while aimed at reducing financial risks, has inadvertently created barriers to access trade finance, particularly for businesses in emerging markets or those dealing with smaller financial institutions.

Over the past two decades, the increasing regulatory burden and associated costs of maintaining up-to-date KYC compliance have compelled banks to reduce the number of correspondent accounts they maintain. Most interviewees highlighted that this has significantly impacted the global banking landscape, as institutions have had to streamline their correspondent relationships to minimise operational and financial strain.

One American regional bank that participated in the interviews highlighted the drastic reduction in the number of bank lines it maintains, citing compliance costs as a primary driver of this decision. A representative from the bank explained:

> *"Our average annual cost to comply with our internal policies and maintain an existing bank line is about $75,000. Since 2009, we have reduced the number of bank lines from 8,000 to 2,000" (B24).*

This statement illustrates how the high costs of KYC compliance have forced banks to rationalise their correspondent relationships, prioritising those that generate sufficient revenue to justify the associated expenses. In many cases, bank lines are reviewed on an annual basis, and if they are not actively used for profitable transactions, they are terminated. Another interviewee reinforced this point, stating:

> *"KYC is a long and costly process. We review approved names annually, and if we don't conduct transactions with them, the name is removed" (B1).*

Since the global financial crisis of 2008, the number of correspondent banking relationships has declined by approximately 20%, with the most significant reductions observed among smaller banks and institutions operating in developing countries (Auboin, 2021). This reduction has exacerbated financial exclusion, making it increasingly difficult for businesses in these regions to engage in cross-border trade and secure financial instruments such as letters of credit.

Within trade finance, the impact of KYC requirements is particularly pronounced. Most trade finance bankers are only authorised to confirm letters of credit for banks that already have an approved KYC status. Given the extensive time and cost involved in the KYC process, banks are generally unwilling to establish new correspondent relationships unless there is a strong commercial justification. Consequently, if an exporter seeks to confirm a letter of credit issued by a bank for which the confirming bank does not have KYC approval, the request is typically declined outright. As one banker noted:

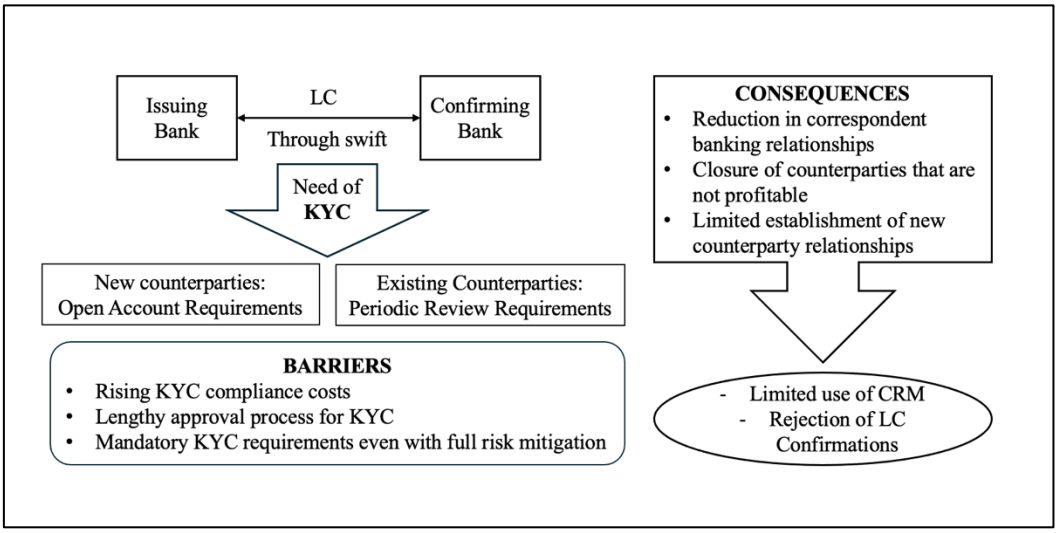
> *"KYC is a major issue in this bank. If we don't have KYC approval for a bank, the chances of that bank becoming a client are very low, and we simply decline the transaction" (B16).*

Some credit risk mitigants, such as some guarantees from Multilateral Development Banks, can provide full coverage for the total amount of a letter of credit, theoretically eliminating the confirming bank's exposure to credit risk. However, even in cases where the confirming bank does not assume any direct credit risk, an approved counterparty line for the issuing bank is still required, and the KYC process must be fully completed before the transaction can proceed. This regulatory requirement underscores the fact that financial institutions must adhere to strict compliance measures, regardless of the level of risk mitigation in place.

> *"KYC is very expensive and time-consuming. If we don't have the KYC of an issuing bank in place, we can't confirm the letter of credit, even if we had a 100% mitigant, so we reject the transaction" (B31).*

This statement illustrates the rigid nature of compliance requirements, which can override commercial considerations even when credit risk has been fully mitigated. The rejection of transactions due to KYC constraints is a compliance issue and a major impediment to global trade, particularly for businesses in emerging markets that rely on letters of credit to secure international transactions.

Figure 17: *AML / KYC Regulation Barriers and Consequences*



Source: developed by the author based on the findings

Figure 17 illustrates the impact of KYC requirements on trade finance operations, particularly in the confirmation of LCs between issuing and confirming banks. The process, facilitated through the SWIFT system, necessitates compliance with KYC regulations before banks can establish correspondent relationships, which in turn affects the ability to confirm LCs.

The diagram highlights the distinction between new counterparties and existing counterparties, both of which are subject to KYC requirements. For new

counterparties, banks must meet open account requirements, while existing counterparties are subject to periodic review requirements. Our findings show that the increasing burden of KYC compliance presents significant barriers for banks, including:

- Rising KYC compliance costs, which increase operational expenses for financial institutions.
- Lengthy approval processes for KYC, leading to delays in transaction processing and reduced efficiency in trade finance.
- Mandatory KYC requirements even in cases where full credit risk mitigation is in place, demonstrating the rigidity of current compliance regulations.

We can also see the broader consequences of the current AML Regulation, including:

- Reduction in correspondent banking relationships, as banks streamline their partnerships to minimise compliance costs.
- Closure of counterparties that are not profitable, prioritising only relationships that generate sufficient revenue.
- Limited establishment of new counterparty relationships, restricting financial inclusion and access to trade finance.

These consequences directly impact trade finance activities, particularly in the confirmation of LCs. Due to the high compliance burden, banks limit their use of credit risk mitigants (CRM) and often reject LC confirmations from banks without an approved KYC status.

4.1.2 Accounting Requirements

All participants in the study agreed that risk mitigation in the confirmation of letters of credit provides substantial advantages. These benefits include the

ability to avoid or significantly reduce both counterparty risk and country risk associated with the issuing bank. Additionally, risk mitigation tools offer capital and credit relief, allowing banks to manage their exposure more efficiently.

However, despite the theoretical advantages of risk mitigants, their treatment varies across banks due to differences in internal policies, regulatory frameworks, and risk management strategies. Some financial institutions may choose not to utilise certain mitigants because their internal risk policies require them to allocate full risk exposure to the issuing bank, regardless of whether a risk mitigant provider is involved. One participant illustrated this challenge by stating:

> *"We have an issue selling unfunded in the bank-to-bank market. Our credit insists on putting the full amount on the issuing bank as it is the primary source of repayment, so we don't use it as it doesn't solve any credit line issues" (B23).*

Another interviewee reinforced this sentiment, noting that:

> *"Private insurance is just a mitigant. It's not a true sale. I still need a full credit line for the transaction amount" (B31).*

These perspectives highlight the limitations of risk mitigation in some banking environments, where internal policies dictate a cautious approach to credit allocation, even when external protections are available.

A few banks explained that they distinguish between gross and net limits when confirming letters of credit. Specifically, they maintain a gross limit for the total transaction value and a net limit for the portion of the exposure that remains after risk mitigation. Despite this approach, gross limits are still required to confirm the letter of credit. One participant provided further detail:

> *"For insurance and unfunded sales, the bank needs a gross limit for the full amount and a net limit for the part that is non-insured or not*

> *guaranteed. For funded sales, it's beneficial, as it reduces both the gross and net limit" (B24).*

This distinction demonstrates that, while risk mitigants may provide some credit relief, they do not entirely eliminate the necessity for credit line allocations, and banks must carefully balance their exposure.

In addition to risk limits, Basel capital requirements play a crucial role in shaping how banks manage trade finance. The study found notable differences in how banks account for capital relief when using credit risk mitigants. One interviewee explained:

> *"For letters of credit confirmation, we don't get risk-weighted asset relief if we use insurance. With an MRPA, yes, but with an insurance policy, no. This is our bank's risk model" (B18).*

Another banker detailed how their institution differentiates between various mitigant providers:

> *"Not with all the insurance companies do I get credit and capital relief. It's the way our group works. For example, I can get credit mitigation with Lloyd's insurance market. However, they are not eligible for risk-weighted asset mitigation" (B6).*

These examples illustrate that while credit risk mitigation can be useful in reducing perceived risk, its regulatory treatment varies, particularly regarding capital relief. Some banks leverage credit risk mitigants from a portfolio management perspective, aiming to optimise capital efficiency. As one participant noted:

> *"Sometimes the portfolio management department asks us to distribute for capital requirement reasons, even if we have credit limits" (B26).*

Regulatory capital requirements play a key role in these decisions, as financial institutions must ensure compliance with evolving frameworks. When

regulators increase capital requirements, banks are often forced to adjust their balance sheets accordingly.

A major consequence of capital constraints is that selling trade finance transactions on a funded basis in the bank-to-bank market has become the preferred option for many financial institutions. Unlike unfunded solutions, funded sales allow banks to achieve true sale treatment, which helps remove assets from their balance sheets and manage regulatory capital more effectively. One participant described this approach as follows:

> *"Our distribution options are very limited due to our balance sheet management policy. Risk-weighted assets have become a key area in the bank, and we have strict limits for every quarter. Most discounted letters of credit are distributed on a funded basis to take assets out of balance" (B22).*

This statement underscores the increasing importance of balance sheet management in trade finance operations. Following the 2008 financial crisis, regulatory changes have intensified banks' focus on capital efficiency, making funded transactions an attractive tool for risk and balance sheet optimisation. Notably, bank-to-bank market activity remained relatively resilient during the financial crisis (Asmundson et al., 2011), further highlighting its role as a stabilising force in trade finance.

The analysis of the qualitative data revealed several key findings related to how accounting requirements shape banks' use of credit risk mitigants in trade finance. The results show that, although risk mitigants offer clear advantages, their application is limited by internal credit policies, capital relief inconsistencies, and regulatory frameworks.

Based on the thematic analysis, the following main findings were identified and are visually summarised in Figure 16:

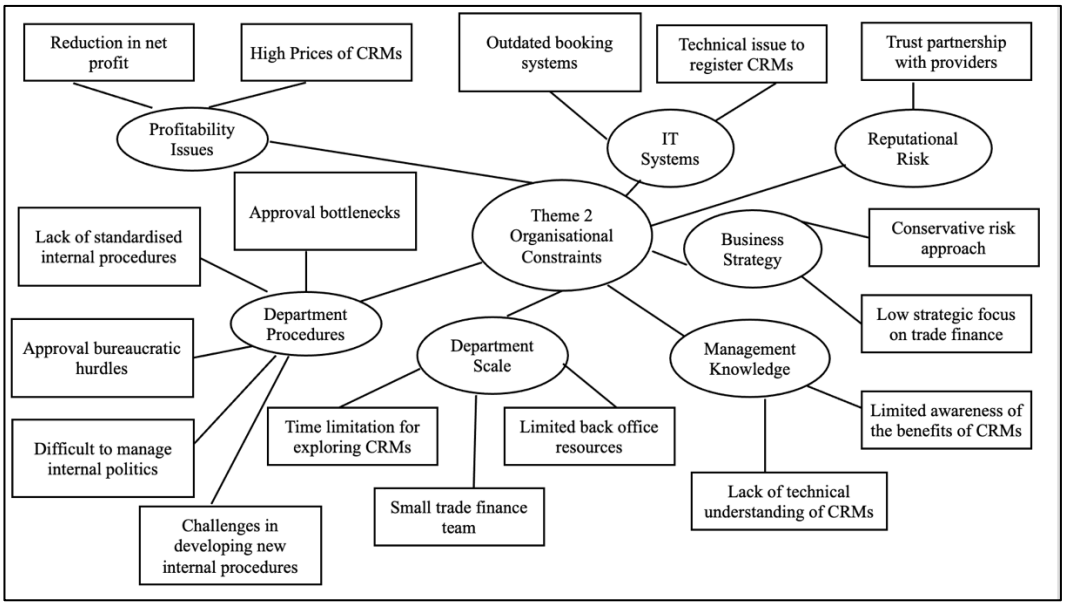
- Impact of Basel capital requirements: Regulatory capital rules influence how banks account for trade finance exposures, often limiting the effectiveness of credit risk mitigants in reducing risk-weighted assets.
- Full risk allocation to issuing banks: Some banks' internal policies require them to assign the full credit risk to the issuing bank, even when external risk mitigation measures, such as insurance or guarantees, are in place.
- Distinction between gross and net credit limits: While some banks differentiate between gross (total transaction value) and net (post-mitigation exposure) limits, a gross limit is still required, restricting the ability to confirm letters of credit.
- Variation in risk-weighted asset treatment: Banks apply disparate risk-weight calculations depending on the type of credit risk mitigant used, with some mitigants (e.g., private insurance) not receiving the same capital relief as others (e.g., MRPA agreements).
- Preference for funded transactions to meet liquidity and capital requirements**:** Many banks favour funded transactions over unfunded risk mitigants, as they provide true sale treatment, remove assets from balance sheets, and help manage liquidity and regulatory capital more efficiently.

4.2 Organisational Constraints

This section presents the findings that emerged under the thematic category of organisational constraints, which capture a range of institutional-level barriers that limit the effective use of credit risk mitigants in trade finance. While credit risk mitigants are recognised as valuable tools for enhancing risk distribution and enabling access to new markets, their application within banks is often shaped, and at times restricted, by internal structures, resources, procedures, and strategic priorities. The analysis revealed that these

organisational factors play a crucial role in determining whether and how credit risk mitigants are incorporated into trade finance transactions. Unlike regulatory or individual barriers, organisational constraints are embedded in the bank's internal functioning and reflect the degree to which trade finance is prioritised, supported, and operationalised within different institutions.

Figure 18: *Thematic Conceptual Map Theme 2*



Source: developed by the author based on the findings

Figure 18 presents the conceptual map developed during the thematic analysis, which illustrates the structure of the organisational constraints theme. This theme was organised into seven sub-themes: profitability, department procedures, department scale, IT systems, business strategy, management knowledge, and reputation and relationship. Each sub-theme was further broken down into second-level codes that capture the specific barriers identified by participants. This visual representation helps clarify the connections between institutional characteristics and the challenges that hinder the strategic and operational deployment of credit risk mitigants.

4.2.1 Profitability

A recurring barrier to the selection of credit risk mitigation instruments, as highlighted by participants, is the issue of profitability. Participants highlighted that trade finance, particularly when dealing with short-term instruments such as letters of credit, operates on thin margins. This limits the economic feasibility of absorbing additional costs associated with risk mitigation tools. In many cases, bankers reported that these costs, which include insurance premiums or fees for guarantees, could erode a substantial portion of the transaction's net margin, thus discouraging their use.

Several interviewees confirmed that their institutions do not consider the letter of credit business particularly profitable and that low pricing often leads them to reject transactions. One banker explained that their institution routinely declines transactions when the pricing is not high enough to justify the operational and compliance burden involved.

> *"If the pricing isn't high enough to cover the operational and compliance costs, we simply decline the transaction. The margins in trade finance are already thin, and we can't afford to take on deals that don't justify the effort." (B9)*

An additional factor influencing the profitability of trade finance transactions is the cost of credit risk mitigation tools, such as insurance or guarantees. These instruments, while useful for reducing risk exposure and improving capital relief, come at a cost that can significantly impact the final net profit of the transaction. Several participants in the study indicated that the expense associated with credit risk mitigation often outweighs its benefits, making it an unattractive option for their institutions. One banker stated:

> *"I don't use insurance because I can't afford to share my profit with the insurance company" (B2).*

Another participant elaborated on this point, explaining that while credit and capital relief are advantageous, the cost of insurance eats into their margins to an extent that makes it impractical:

> *"For us, capital and credit relief are good, but we don't like to pay insurance companies 75% of our margin" (B7).*

These comments illustrate that while credit risk mitigants serve an important function in reducing counterparty and country risk, their cost-effectiveness is a crucial consideration for banks when deciding whether to use them.

However, not all participants viewed insurance as prohibitively expensive. One interviewee noted that, while insurance absorbs a significant portion of the transaction fee, the secondary market for selling trade finance risk is often even more costly. This participant explained:

> *"Insurance gets 65% of the price, but if we sell to the secondary market, we need to offer market price. The secondary market is more expensive than insurance" (B3).*

This perspective suggests that, for some banks, using insurance remains a preferable option when compared to distributing the risk in the secondary market, where pricing pressures can be even greater. The choice between different risk mitigation strategies, therefore, depends on the individual bank's risk appetite, pricing models, and access to alternative risk distribution channels.

In general, credit risk mitigants are perceived by many banks as costly, and their impact on the net profitability of transactions serves as a limitation to their widespread use. While these tools offer tangible benefits in terms of reducing regulatory capital requirements and improving risk management, they do not always align with banks' financial objectives, particularly in a competitive industry where profit margins are already thin. The reluctance to absorb

additional costs associated with risk mitigation highlights a broader challenge in trade finance, balancing risk reduction with economic feasibility.

Based on the qualitative analysis undertaken in this study, the following factors have been identified as key drivers influencing banks' reluctance to use credit risk mitigants in trade finance transactions, primarily due to concerns related to profitability.

- Low profit margins in trade finance. Trade finance, particularly short-term instruments like letters of credit, is generally considered a low-margin business for banks. This means that any additional cost, such as that of using a credit risk mitigants, further erodes the already limited profitability of these transactions.
- High cost of credit risk mitigants. Risk mitigation tools such as insurance or guarantees come at a significant financial cost. Several bankers interviewed noted that insurance premiums could absorb between 65% and 75% of the transaction margin, making the use of such instruments financially unattractive.
- Operational and compliance costs. Even when a mitigant is used, confirming a letter of credit requires considerable effort in terms of operations and regulatory compliance. If the transaction does not generate enough income to cover these costs, it is often rejected outright.
- Comparison with alternative risk distribution options. While insurance may be costly, some participants reported that distributing risk via the secondary bank market can be even more expensive. However, if neither option proves economically viable, banks often choose not to proceed with the transaction.
- Subjective perception of cost-effectiveness. Rather than conducting a detailed analysis of the capital or risk-weighted asset relief associated with mitigants, some bankers rely on subjective judgment and simply

consider the cost "not worth it", particularly in low-margin environments.

4.2.2 Department Procedures

Interviews with bankers revealed that the trade finance department plays a central role in managing credit risk within financial institutions. Their responsibilities include selecting and implementing credit risk mitigants when necessary, overseeing the structure of trade finance products, and supporting the origination of new transactions. However, despite the importance of credit risk mitigants in reducing exposure and facilitating trade finance transactions, not all banks have standardised procedures for their use. The degree of autonomy in applying these mitigants varies across institutions, with some banks enjoying a streamlined decision-making process while others face significant bureaucratic hurdles.

One of the most frequently cited challenges is the requirement for additional approvals to use certain credit risk mitigants. Several bankers expressed frustration with internal restrictions that limit their ability to deploy risk-mitigation tools efficiently. These constraints often lead to delays, increased operational burdens, and, in some cases, the outright rejection of transactions that could have been processed with the use of appropriate credit risk mitigants. One banker shared their experience:

> *"We could go to the board to ask to mitigate the letter of credit with insurance, but bosses didn't want me to go to the board for approval" (B14).*

This example highlights how institutional hierarchies and decision-making structures can hinder the flexibility of trade finance teams in applying risk mitigation solutions. Similarly, another banker described the cumbersome approval process at their institution:

> *"Credit risk mitigation methodology for trade finance hasn't been approved by the board yet, so we need to request approval case by case from different committees depending on the amount of the transaction. We need to update it, but as it's a new activity, we must work on it. Sometimes we decline transactions to avoid presenting them to certain committees" (B15).*

This illustrates how a lack of predefined policies can lead to inefficiencies, forcing trade finance teams to navigate multiple layers of internal approvals, which can discourage them from pursuing certain transactions altogether. The time-consuming nature of these processes can also put banks at a competitive disadvantage, particularly when dealing with time-sensitive trade finance deals that require swift decision-making.

A few banks noted that they were actively working to develop a formal distribution process for trade finance transactions. However, approving new products and procedures within a bank is often a complex and lengthy process, requiring extensive coordination between different departments, risk committees, and senior management. One interviewee emphasised the challenge of internal approvals, stating:

> *"They have put much trust in my knowledge, but I need more about internal politics than market knowledge. It took me a year to speak with relevant departments to implement the distribution concept. Managing the internal politics is the biggest constraint to distribution" (B16).*

This highlights how internal politics and institutional inertia can often pose a greater challenge than market conditions when trying to introduce new trade finance strategies. While banks may recognise the benefits of distribution and risk mitigation, the implementation of new frameworks requires overcoming resistance from various internal stakeholders, aligning different risk perspectives, and securing senior-level approval.

While regional banks often struggle with internal approvals, some global banks have found ways to navigate these challenges more effectively. Even though not all global banks have approved distribution processes across all their subsidiaries, those with strong internal communication and well-established frameworks can leverage their international presence to find solutions. One banker explained how their institution manages distribution across different jurisdictions:

> *"We can only have the technical infrastructure to sell in seven countries, representing 80% of the total aggregated volume. In the rest of the countries, we use MDBs. Credit financial institutions' limits are global, so we can book in one country and sell an existing position from another country" (B22).*

This statement illustrates how some global banks manage their trade finance operations by centralising risk limits at a global level, allowing them to optimise their use of credit risk mitigants across multiple jurisdictions. By leveraging their network, these banks can structure transactions in a way that enables them to overcome local constraints, using MDBs when necessary to facilitate trade finance deals in countries where they lack direct infrastructure.

The selection and implementation of credit risk mitigants in trade finance remain complex and institutionally dependent. While trade finance departments are tasked with managing these mitigants and supporting transaction origination, their ability to apply risk mitigation tools is often constrained by internal approval processes and bureaucratic hurdles. Regional banks, in particular, face significant challenges in securing approvals, leading to inefficiencies and missed opportunities.

Developing a robust distribution process is also a key challenge, with many bankers noting that internal politics and institutional resistance often present greater obstacles than market conditions. The need to secure approval from multiple committees can create delays, discouraging trade finance teams from actively pursuing risk mitigation strategies.

In contrast, global banks with well-integrated operations and efficient internal communication structures are better positioned to navigate these challenges. By centralising credit limits and leveraging their international presence, they can optimise trade finance transactions and mitigate risk more effectively. However, even among these institutions, the need for regulatory alignment and approval processes remains an important factor in determining how credit risk mitigants are utilised.

Based on the qualitative analysis of interviews with trade finance professionals, the following key findings were identified in relation to internal organisational constraints on the use of credit risk mitigants:

- Central role of trade finance departments. Trade finance teams are responsible for structuring transactions, managing credit risk, and selecting appropriate credit risk mitigants. However, their effectiveness often depends on internal processes and decision-making authority.
- Lack of standardised internal procedures. Not all banks have approved or standardised frameworks for using credit risk mitigants. This results in inconsistent practices and case-by-case decision-making.
- Approval bottlenecks and bureaucratic hurdles. Many institutions require multiple layers of approval (e.g. risk committees, boards) for the use of credit risk mitigants. These delays discourage the use of mitigants and can lead to the rejection of otherwise viable transactions.
- Internal politics and institutional inertia**.** Trade finance managers often need to navigate internal politics to implement distribution strategies or risk mitigation frameworks. Resistance from other departments and lack of alignment with senior management were frequently cited as obstacles.
- Challenges in developing new internal frameworks. Some regional institutions are in the process of developing formal distribution and risk mitigation procedures. However, progress is slow due to internal complexity and coordination challenges.

Ultimately, the findings highlight the importance of streamlining internal procedures for approving and implementing credit risk mitigants. Banks that can develop more agile and efficient frameworks for trade finance risk management will be better equipped to handle the complexities of international trade while ensuring compliance with regulatory requirements. Moving forward, financial institutions may benefit from adopting clearer policies on risk mitigation, reducing the bureaucratic burden associated with approvals, and enhancing coordination between trade finance teams and senior management to facilitate smoother execution of transactions.

4.2.3 Department Scale

One of the predominant impediments reported by interviewees was the constraint on resources available for exploring different credit risk mitigation options. This limitation is primarily due to the size of trade finance distribution teams and related departments, which affects a bank's ability to actively seek and implement risk mitigation strategies. Trade finance transactions, particularly those involving letters of credit, require extensive documentation, making experienced personnel in the back office essential to ensuring smooth execution. While some banks have dedicated and well-staffed trade finance back-office departments, others operate with significantly smaller teams, making it challenging to efficiently manage risk distribution and credit mitigation efforts.

The disparity in resources between large and small banks is evident in how they approach trade finance transactions. Some banks have the infrastructure to quickly place assets in the secondary market or obtain insurance coverage, when necessary, while others struggle to balance transaction execution with risk mitigation efforts. One banker illustrated this challenge by explaining:

> *"If I have a request from a bank in Tanzania and I don't have enough lines, but I want to do the deal, I will immediately put the asset in the*

> *secondary market and insurance market. The only way to do business is by implementing distribution, but then I must look at the whole bank. We are a small bank. If I increased the business, my back office would collapse" (B13).*

This statement highlights a critical issue faced by smaller banks. While distribution is essential to expanding trade finance activities, limited operational capacity can act as a bottleneck. If trade finance volumes increase without a corresponding expansion of back-office capabilities, operational inefficiencies can arise, potentially leading to processing delays and missed business opportunities.

Another recurring theme among interviewees was the challenge faced by bankers who are responsible for multiple functions within their trade finance departments. In some banks, the same individuals often manage origination, structuring, and distribution, leaving little time to explore alternative credit risk mitigants or negotiate with potential counterparties. Unlike other banks with specialised teams for different functions, these institutions must prioritise immediate business needs over long-term risk management strategies.

One interviewee described how limited personnel affect their ability to distribute risk effectively:

> *"We are a two-person team, and we don't have time to distribute the risk. We only use insurance through a broker because it is easy, and we don't need much effort. If the broker doesn't come back with a quote, we decline the confirmation of the letter of credit" (B3).*

This statement underscores how understaffed trade finance teams may opt for the simplest and least time-consuming risk mitigation method, even if it is not necessarily the most cost-effective or efficient. By relying solely on brokers for insurance rather than actively seeking out alternative mitigants, such as guarantees or risk-sharing agreements with other banks, these institutions may be limiting their ability to optimise risk distribution.

The limited capacity of trade finance teams to actively manage credit risk mitigation has broader implications for financial institutions and global trade. When banks lack the resources to engage in effective risk distribution, they may be forced to decline transactions that could otherwise be executed with the right mitigants in place. This creates inefficiencies in the trade finance market, particularly for transactions involving counterparties in emerging economies, where access to financing is already a challenge.

Additionally, the reliance on brokers for insurance, while convenient, may not always provide the most competitive pricing or comprehensive coverage. Banks that are unable to directly engage with insurers, other banks, or MDBs for risk-sharing arrangements may end up paying higher premiums or missing opportunities to diversify their risk exposure. Furthermore, the inflexibility in risk mitigation strategies may lead to an overreliance on a single form of protection, rather than employing a diversified approach to managing trade finance risks.

For smaller banks, increasing trade finance capacity requires a balance between business expansion and operational scalability. Investing in trade finance personnel, automation, and improved internal processes could help alleviate the burden on existing teams, allowing them to explore a wider range of risk mitigation solutions. Additionally, establishing more streamlined approval processes for credit risk mitigants could enable trade finance teams to act more quickly in securing risk coverage rather than being hindered by internal bureaucracy.

Based on the qualitative analysis of the interview data, several key findings emerged regarding how limited internal resources constrain the use of credit risk mitigants in trade finance operations. These constraints, particularly prevalent among smaller banks, affect both the ability and the willingness of institutions to explore and implement a diverse range of risk mitigation strategies, as summarised below:

- Staffing limitations: Smaller banks often lack dedicated personnel for trade finance distribution, making it difficult to manage both transaction execution and risk mitigation effectively.
- Operational bottlenecks: Limited back-office capacity constrains the ability to process higher trade volumes or implement more complex mitigation strategies.
- Multifunctional roles: In many institutions, the same individuals are responsible for origination, structuring, and distribution, reducing time and capacity to explore diverse risk mitigants.
- Reliance on brokers: Under-resourced banks often depend on brokers to obtain insurance quotes, opting for simplicity over strategic risk distribution.
- Missed opportunities: Lack of internal resources leads to declined transactions that could be accepted with appropriate credit risk mitigation

4.2.4 Information Technologies Systems

Interviews with bankers revealed that outdated and inefficient IT booking systems pose a significant barrier to the effective implementation of credit risk mitigation in trade finance. Even when banks have approved the use of risk mitigants such as insurance, unfunded risk participation, or guarantees, technical limitations within their booking systems prevent them from correctly registering these mitigants. As a result, banks are unable to execute transactions that could otherwise be completed with appropriate credit relief mechanisms in place.

Four banks in the study specifically reported issues related to their IT infrastructure, highlighting how a lack of technological investment has constrained their ability to fully utilise credit risk mitigants. One banker, for

instance, expressed frustration over the manual nature of their systems, which hinders the registration of credit relief for certain insurance companies or banks:

> *"We are not investing in technology. Our booking systems are very old and very manual. Sometimes, we have problems registering the credit relief with some insurance companies or banks, and we can't do the transaction" (B27).*

This statement underscores the broader issue of technological obsolescence within some financial institutions. While many banks have modernised their systems to accommodate evolving trade finance needs, others continue to rely on legacy infrastructure that is not equipped to handle complex risk mitigation transactions. Without the ability to register credit relief in their IT systems, these banks face operational inefficiencies, increased manual workloads, and, in some cases, missed business opportunities.

Two other banks specifically cited issues with recording unfunded participation from the bank-to-bank market. While unfunded risk participation is an essential tool for distributing risk in trade finance, the inability to register it in internal booking systems has prevented some banks from fully leveraging this risk mitigation technique. One banker explained that, despite a recent change in credit policy allowing the use of unfunded mitigants, their IT systems do not currently support it:

> *"Credit policy has changed, and now we can use unfunded mitigation. However, we have a technical issue. Our systems can't reflect the unfunded mitigation. This is an ongoing problem we are trying to solve. The internal system is not friendly from a distribution perspective. We are looking to use some platforms for that" (B23).*

This insight highlights how internal IT constraints can create a disconnect between policy changes and practical implementation. Even when a bank's credit policy evolves to incorporate new risk mitigation strategies, the absence of an adequate IT infrastructure prevents these strategies from being put into practice. In this case, the bank is exploring external platforms to compensate

for its system limitations, a strategy that may require additional time and investment before full integration can be achieved.

Another banker highlighted a specific IT challenge related to banks operating under different regulatory approaches within the Basel framework. Some banks apply the advanced approach, which allows them to achieve capital relief for unfunded risk mitigation, while others use the standardised approach, which does not provide the same benefits. The issue, however, lies in the bank's IT system, which fails to distinguish between the two approaches when making risk-weighted asset (RWA) adjustments:

> *"Depending on the entity of the group, the trade finance book is on the advanced approach, and we do get capital relief for unfunded risk mitigation. But if it's on the standardised approach, we won't get capital relief. That is an IT issue because our booking systems don't cater to RWA adjustments on the standardised approach book" (B18).*

This example demonstrates how regulatory compliance and IT systems must be closely aligned for banks to accurately apply capital relief measures. The inability to distinguish between different regulatory treatments results in inefficiencies and potential capital misallocations, making it difficult for banks to optimise their trade finance activities. Such limitations can also impact strategic decision-making, as banks may avoid transactions that would otherwise be feasible if their IT infrastructure could properly account for regulatory variations.

Drawing from the qualitative insights gathered during the interviews, the following key findings emerged regarding the impact of IT system limitations on the use of credit risk mitigants in trade finance:

- Outdated and manual booking systems prevent the correct registration of credit risk mitigants.

- Several banks reported an inability to reflect credit relief from insurance or bank guarantees in their IT systems.
- Lack of technological investment creates operational inefficiencies and missed transaction opportunities.
- Some banks cannot record unfunded risk participation due to system constraints, despite policy approval.
- Banks are seeking external platforms to overcome internal IT deficiencies, but integration remains a challenge.

4.2.5 Business Strategy

Not all financial institutions prioritise trade finance within their broader business strategy. While some banks view trade finance as a core area of growth and actively use credit risk mitigants to expand their capacity and manage risk, others treat it merely as a supplementary service. In these latter institutions, trade finance serves as a support product rather than a key revenue driver, and as a result, the use of credit risk mitigants remains limited. This divergence in strategic priorities influences how banks approach risk management, credit allocation, and their overall willingness to engage in trade finance transactions involving higher-risk jurisdictions or counterparties.

The decision to limit trade finance activities often stems from broader institutional goals and resource allocation preferences. Some banks prioritise other areas of financial services, such as corporate lending or investment banking, where they perceive higher profit margins and stronger long-term growth prospects. Consequently, these banks may choose not to invest in risk mitigation tools that would enable them to take on more trade finance transactions. As one interviewee explained:

> *"We could do more business if we used credit risk mitigants, but trade finance is not a strategic department for the bank, and they prefer to*

> *grow in other areas. We focus on SMEs and can now use mitigants for the corporate risk but not for financial institutions yet" (B15).*

This quote illustrates how trade finance often takes a backseat in banks that prioritise other areas of business. While the availability of credit risk mitigants could allow these banks to expand their trade finance operations, they choose to allocate their resources elsewhere, leading to a self-imposed limitation on transaction volume.

Another key reason why some banks avoid using credit risk mitigants is their inherently conservative approach to risk. Several interviewees reported that their institutions preferred to only confirm letters of credit from select countries and counterparties, choosing to avoid transactions that required additional risk mitigation. This conservative approach means that even when a mitigant could effectively neutralise a perceived risk, the bank may still decline the transaction. For instance, one interviewee described their bank's longstanding reluctance to engage in risk distribution:

> *"Historically, we haven't done any distribution. My predecessor was frustrated trying to set up the distribution desk. We do exactly what we like; we don't take any risk we don't like, even with mitigant" (B23).*

This statement underscores how institutional culture, and historical precedent can shape trade finance strategies. Some banks prefer to work within a tightly defined risk framework, rejecting transactions outside their comfort zone rather than seeking mitigants to facilitate them.

Similarly, another banker highlighted how commercial pressure to grow the trade finance business did not override their institution's conservative risk approach:

> *"I have commercial pressure, but my mandate is to manage the risk. We are a conservative bank, and I don't have the mandate to find solutions to approve the transactions if we don't like the risk" (B15).*

This demonstrates how internal mandates can restrict trade finance teams from exploring alternative solutions that would enable them to take on additional business. Even when there is demand from clients and potential profitability in expanding trade finance operations, institutional conservatism can limit the role of credit risk mitigants in facilitating risk distribution.

The reluctance of some banks to expand their trade finance operations using credit risk mitigants has significant implications for global trade. Since trade finance plays a crucial role in facilitating cross-border transactions, banks that limit their involvement in this area contribute to the persistent trade finance gap, particularly for SMEs and businesses operating in emerging markets.

If more banks adopted a strategic approach to trade finance and leveraged credit risk mitigants effectively, they could expand their capacity to support international trade. However, as long as institutional conservatism and resource allocation constraints persist, many banks will continue to limit their trade finance exposure, leaving a portion of global trade finance demand unmet.

The main barriers identified within the business strategy sub-theme that limit the use of credit risk mitigants in trade finance are as follows:

- Lack of strategic prioritisation of trade finance: In many institutions, trade finance is not considered a core area of growth but rather a support function, reducing the institutional drive to invest in credit risk mitigation tools.
- Resource allocation to other business lines: Banks often channel resources, such as capital, personnel, and technology, into areas perceived as more profitable, like corporate lending or investment banking, leaving limited support for risk mitigation in trade finance.
- Conservative institutional culture: Some banks adopt a risk-averse stance, avoiding transactions in certain jurisdictions or with certain counterparties, even when effective credit risk mitigation solutions are

available. This preference for low-risk activity restricts credit risk mitigant uptake.

- Restrictive internal mandates: Trade finance teams are frequently tasked with risk control rather than business development. As a result, they lack the mandate to actively pursue credit risk mitigation strategies that could enable deal approval.
- Rejection of external solutions: Rather than exploring mitigation options, some institutions choose to avoid any transactions that fall outside their internal comfort zones, regardless of potential credit risk mitigation effectiveness.
- Institutional inertia: Historical reluctance to engage in risk distribution or credit risk mitigant usage often persists, making it difficult for new strategies to gain traction, even when they align with commercial objectives.

4.2.6 Knowledge of the Management of the Bank

Another of the key findings of this research is the significant role that management's understanding of trade finance and credit risk mitigants plays in shaping a bank's approach to risk distribution. The knowledge and familiarity of senior decision-makers with financial products directly influence whether a bank adopts risk mitigation strategies or remains reliant on more traditional, restrictive credit policies.

Several interviewees reported that they had prior experience with trade finance distribution and credit risk mitigation in their previous roles at other banks. These individuals recognised the benefits of using risk mitigants to expand business opportunities and sought to implement similar processes within their current institutions. However, their efforts were often met with resistance from senior management, who lacked knowledge of credit risk mitigants and were hesitant to adopt new strategies. This resistance often resulted in frustration, as

bankers found it difficult to convince management of the value of these instruments.

One interviewee shared their experience of attempting to introduce credit risk mitigants at their bank but facing reluctance from management:

> *"There is no distribution department. The management is not familiar with the mitigation instruments. And they don't want to use them. We only use our local ECA sometimes, and if we can't do it with the ECA, we decline" (B28).*

This statement highlights how a lack of familiarity with credit risk mitigants at the management level can lead to a conservative approach where banks limit themselves to the most familiar forms of risk distribution, such as export credit agencies (ECAs). By refusing to explore alternative mitigants, these banks miss out on opportunities to expand their trade finance business, which ultimately impacts their ability to serve clients operating in riskier markets.

Another issue reported by interviewees was that even when they presented clear, well-structured proposals outlining the benefits of credit risk mitigants, they often felt that their recommendations were not trusted by senior management. Many bankers believed that management's unfamiliarity with credit risk mitigation tools made them sceptical about adopting new risk management techniques, even when those techniques were widely used in other institutions.

One banker recounted a specific instance where a transaction with the International Finance Corporation (IFC) was declined due to management's reluctance to approve the proposed credit risk mitigation solution:

> *"We were working on a transaction with IFC, but we couldn't do it for a sovereign issue. I presented several solutions, but I was not heard, and we declined the letter of credit. I know another bank closed it after, but because there was an employee there, ex-IFC, and she could internally persuade the management" (B31).*

This example illustrates how internal advocacy and familiarity with financial institutions such as the IFC can make a difference in securing trade finance transactions. In this case, another bank successfully executed the transaction because one of its employees had previous experience working at IFC and was able to persuade management of the viability of the deal. This suggests that the presence of employees with expertise in credit risk mitigation can be a critical factor in determining whether a bank is willing to use such instruments.

In banks where senior leadership is well-versed in credit risk mitigation strategies, there is typically greater willingness to explore and implement these tools. However, in institutions where management is unfamiliar with such instruments, there is often hesitation to engage in transactions that require them. This lack of knowledge results in missed business opportunities, as banks decline transactions that could have been executed with appropriate risk mitigation in place.

The reluctance of some banks to adopt credit risk mitigants due to a lack of managerial knowledge has broader implications for the trade finance industry. Trade finance is a critical enabler of global trade, and its availability directly impacts businesses, particularly in emerging markets where access to financing is often constrained. When banks refuse to use risk mitigants, they limit their ability to support clients operating in high-risk environments, thereby exacerbating the global trade finance gap.

The analysis of the interview data revealed that the level of knowledge and familiarity with credit risk mitigation tools among senior management plays a pivotal role in shaping institutional attitudes towards their use. The following barriers were identified as key constraints stemming from managerial knowledge gaps:

- Lack of technical understanding of credit risk mitigants: Senior management often lacks familiarity with how instruments such as

insurance, guarantees, and unfunded risk participations function and how they contribute to regulatory compliance and risk management.

- Distrust towards internal proposals: Even when trade finance teams present clear and well-structured risk mitigation strategies, the absence of technical knowledge at the senior level leads to scepticism and rejection of such proposals.
- Reliance on familiar instruments only: In the absence of broader product knowledge, banks tend to rely solely on well-known tools, such as Export Credit Agencies, while overlooking more flexible or appropriate mitigants.
- Resistance to strategic change**:** A limited understanding of credit risk mitigants fosters a conservative institutional culture in which avoiding risk takes precedence over proactively managing it through mitigation techniques.
- Missed opportunities due to lack of internal advocacy: Without leaders who understand and support risk distribution mechanisms, banks are more likely to reject otherwise feasible transactions, while competitors with technically informed staff proceed with them.
- Disconnect between commercial strategy and risk management: The lack of awareness regarding the potential of credit risk mitigants prevents senior management from recognising these tools as enablers of business growth, particularly in transactions involving higher-risk jurisdictions or counterparties.

4.2.7 Reputation and Relationship

In situations where a bank lacks available credit for an issuing bank, it has the option to distribute the full amount of a letter of credit in the bank-to-bank market, thereby enabling the confirmation of the transaction. This practice allows banks to facilitate trade finance transactions even when they have

exhausted their direct exposure limits. However, despite the technical feasibility of selling 100% of a letter of credit's risk exposure, many bankers who actively use this credit risk mitigant prefer not to do so when full coverage is required. Instead, they highlight reputational and relationship-driven considerations as key factors influencing their approach to risk distribution.

The reluctance to sell the entire risk exposure of a trade finance transaction stems from concerns over reputational risk. Banks are increasingly cautious about how their risk management decisions are perceived by the market, as maintaining trust among counterparties, investors, and regulatory authorities has become a crucial aspect of financial stability.

One banker explained how their institution addresses reputational concerns by retaining a portion of the risk on their books, even when selling an asset to another bank:

> *"For reputational risk, we must keep 10% of any transaction we sell. We don't like the market to see us selling 100% of our risk. We don't want the market to think we are offloading assets we are uncomfortable with. That is why we keep a 10%, to avoid reputational issues. We can only sell an asset the bank feels comfortable with, but we sell because we don't have more credit availability" (B22).*

This statement illustrates the delicate balance banks must maintain when distributing risk. While selling a portion of a trade finance asset is an accepted practice, selling the entirety of the exposure can create the perception that the bank lacks confidence in the issuing bank or the underlying transaction. By retaining at least 10% of the risk, banks signal to the market that they are still willing to take some exposure, thus mitigating concerns about the quality of the asset being sold.

Beyond reputational considerations, relationship management plays a critical role in determining whether a bank will sell trade finance exposure. For many financial institutions, correspondent banking relationships are built on trust,

long-term engagement, and mutual risk-sharing agreements. Some banks believe that offloading risk entirely can signal a lack of confidence in a particular counterparty, potentially straining their relationships with issuing banks.

One interviewee explained that their institution avoids selling exposure if they have suspended a counterparty's limit due to risk concerns:

> *"If we have a limit suspended because we think it is not a good risk, or we don't have it, then we don't even sell it. It's a relationship issue" (B6).*

This insight highlights how banks differentiate between situations where risk distribution is used as a credit management tool and cases where it may be perceived as an attempt to offload undesirable exposure. When a bank has suspended a limit due to concerns about the issuing bank's creditworthiness, selling that exposure to another institution could be seen as passing on an unacceptable risk. This could damage the bank's reputation and credibility in the market, as other institutions may question why the risk was offloaded in the first place.

While selling exposure in the bank-to-bank market provides banks with a tool for managing credit limits and optimising balance sheet utilisation, the findings suggest that banks are highly conscious of how this practice is perceived externally. The decision to retain a portion of the risk is a strategic one, aimed at balancing financial risk management with reputational and relationship considerations.

This dynamic underscores a key challenge in trade finance: while banks must manage their risk exposure prudently, they also need to maintain confidence in the eyes of their peers and counterparties. The decision to sell or retain exposure is not merely a financial one but also a reputational and strategic consideration.

An important dimension emerging from the qualitative data is the influence of reputational considerations and relationship management on banks' decisions to use credit risk mitigants. While risk distribution strategies such as selling exposure in the bank-to-bank market offer technical solutions to credit constraints, their application is often shaped by more subjective factors. Interviewees highlighted that, beyond credit availability and risk appetite, banks also weigh how their actions are perceived by the market and by counterparties. These reputational and relational dynamics can significantly limit the extent to which credit risk mitigants are applied, particularly when it comes to fully offloading exposure. The following findings illustrate how these considerations impact trade finance practices:

- Banks avoid selling 100% of a letter of credit to protect their reputation in the market.
- Institutions often retain a small portion (e.g., 10%) of risk to signal confidence in the transaction.
- Full risk offloading may be perceived as a lack of trust in the issuing bank or underlying asset.
- Relationship considerations influence distribution decisions, especially with correspondent banks.
- Banks refrain from selling exposure if a limit has been suspended due to credit concerns.
- Risk distribution decisions are shaped not only by credit availability but also by reputational and relational factors.

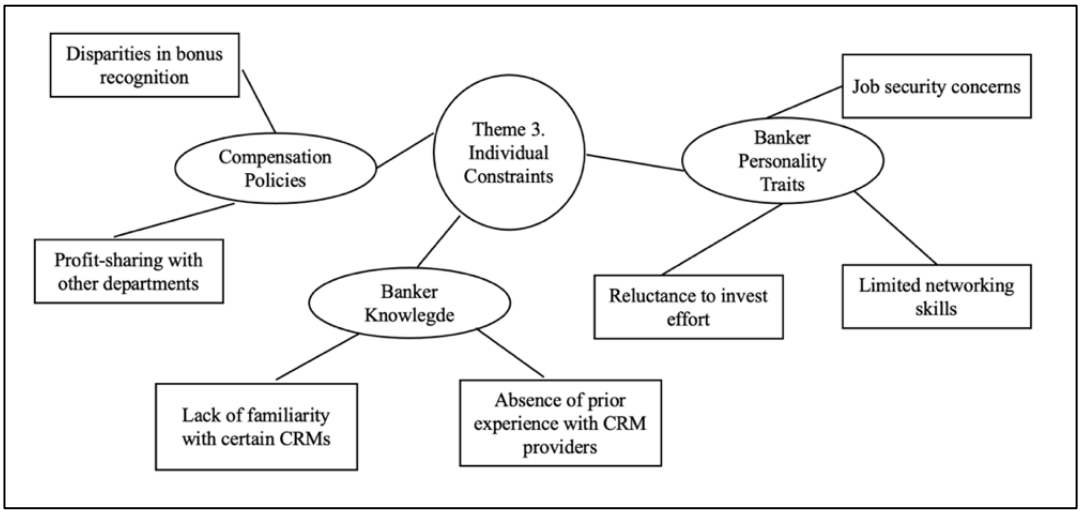
4.3 Individual Constraints

Despite the highly regulated nature of the banking sector, bankers' decisions are still influenced by their individual knowledge, experiences, and emotions. While financial regulations aim to standardise risk management practices and ensure stability in the financial system, decision-making in trade finance remains subject to human judgement, which can sometimes diverge from purely

rational, profit-maximising behaviour. This divergence can create a principal-agent problem, wherein the objectives of bankers and managers do not necessarily align with the broader goals of stakeholders, including shareholders, regulators, and customers.

The selection and use of credit risk mitigants in trade finance, such as insurance, guarantees, and unfunded risk participation, are not purely dictated by risk models or regulatory frameworks. Instead, as shown in Figure 19, which presents the conceptual map of Theme 3 that emerged from the thematic analysis of the interviews, several factors influence these decisions, including compensation policies, the professional backgrounds and expertise of bankers, and even their personality traits. These elements can introduce biases into decision-making, sometimes leading to suboptimal choices that do not fully align with the interests of stakeholders.

Figure 19: *Thematic Conceptual Map Theme 3*



Source: Developed for this study by the author

4.3.1 Compensation Policies

Compensation structures, particularly bonus incentives, play a crucial role in shaping decision-making in trade finance. Participants in this study emphasised that bonuses constitute a substantial portion of their overall remuneration, often accounting for 50-75% of their base salary. While financial institutions generally use performance-based formulas to determine bonus amounts, not all trade finance products carry the same weight in these calculations. This discrepancy directly influences bankers' willingness to engage in certain transactions and impacts their choice of credit risk mitigants, sometimes leading to suboptimal decision-making based on financial incentives rather than risk management best practices.

A finding of this study is that credit risk mitigants are not uniformly recognised in bonus calculations across different banks. Some banks require that transaction income be shared with another department depending on the type of mitigant used, while others do not attribute any credit at all to certain mitigants. This system creates internal conçflicts, discouraging bankers from using risk mitigants that do not contribute to their personal bonus pool, even if these tools would allow the bank to conduct more transactions safely and efficiently. One participant expressed their frustration regarding how transaction income is allocated across departments:

> *"It's always a political issue depending on who gets the recognition. This has to be solved. There is no point in using one instrument if you don't get the recognition!" (B7).*

This sentiment highlights how internal politics and compensation structures can lead to inefficient decision-making. Rather than choosing the best credit risk mitigant for a given transaction, bankers may prioritise those that provide them with direct financial recognition, even if this results in missed opportunities or suboptimal risk management.

Another common source of frustration among participants was the requirement to share transaction income with other departments, particularly in cases where insurance was used as a credit risk mitigant. Some banks maintain dedicated departments responsible for managing relationships with insurance providers, requiring trade finance teams to allocate a significant percentage of their transaction fees to these departments if insurance is used. This allocation reduces the net earnings of the trade finance team, creating a financial disincentive to use insurance as a mitigation.

One banker described how this system influenced their decision to prioritise the bank-to-bank market over insurance, even when insurance might have been the more effective solution:

> *"My first option is the bank-to-bank market. We have a department in charge of the relationship with insurance companies, and if I don't have investors in the bank-to-bank market, I should contact them to look for an insurance quote. If I close the transaction with the insurance company, I need to give this department a big percentage of the profit from the confirmation fee. Why do I have to share my profit with them if they use a broker that I could use as well if I were allowed to? In those cases, I prefer to decline the deal unless it is a huge one and focus on other deals more profitable for my department" (B31).*

This response illustrates how profit-sharing requirements create perverse incentives that lead bankers to avoid using certain risk mitigants. If a trade finance professional perceives that their personal financial gain will be reduced by involving another department, they may actively avoid transactions that require risk mitigation, even when such mitigants would benefit the bank as a whole.

Compensation policies play a crucial role in shaping decision-making in trade finance. When properly structured, they can promote the optimal use of credit risk mitigants and support the sustainable growth of trade finance business. However, when misaligned, they can create barriers to efficient risk

distribution, limiting banks' ability to manage their exposure and support international trade effectively.

Based on the analysis of the interview data, it became evident that compensation policies have a strong influence on how bankers approach the use of credit risk mitigants. The following points summarise the key findings related to how incentive design and internal dynamics affect decision-making in trade finance:

- Bonus structures play a key role in shaping banker behaviour, often representing 50–75% of their base salary.
- Not all credit risk mitigants receive equal recognition in bonus calculations across banks. Products like insurance are often not included or require profit-sharing with other departments, discouraging their use.
- Internal politics and recognition disputes influence risk mitigant selection, with bankers avoiding options that reduce their personal bonus or require sharing profits with other teams.

4.3.2 Banker´s Background and Knowledge

The distribution of trade finance requires specialised knowledge that not all banks possess. While some institutions have well-established distribution teams and risk management frameworks, others lack the expertise necessary to fully utilise credit risk mitigants. Surprisingly, many participants in this study, including those working for large global banks, were unaware that export credit agencies (ECAs) offer products that can facilitate the confirmation of letters of credit. Their assumption was that ECA-backed products were primarily designed for medium- and long-term export finance transactions or large-scale project finance rather than short-term trade finance.

One participant expressed their surprise at discovering that ECAs provide support for short-term trade finance:

> *"I didn't know ECAs offer products for short trade finance. We are missing that. We are not doing anything with ECAs, maybe for lack of knowledge" (B19).*

This finding highlights a significant gap in banking knowledge and training, particularly regarding the availability and applicability of credit risk mitigation tools. If trade finance professionals are unaware of certain risk mitigants, they are unlikely to utilise them, leading to unnecessary transaction rejections and missed business opportunities.

Another key factor influencing the adoption of credit risk mitigants is career mobility within the financial sector. Bankers frequently move between institutions or transition from insurance companies to banks, bringing their knowledge and expertise with them. This movement of professionals plays a critical role in shaping the adoption of credit risk mitigants within banks.

One banker described how the use of insurance as a credit risk mitigant was dependent on the background of key personnel:

> *"We can't do insurance. The use of insurance depends a lot on the specific people in charge of the business. If they have experience working with insurance in previous jobs, they are reliable within the bank and push internally to do it" (B14).*

This statement illustrates how institutional knowledge gaps can be filled when experienced professionals advocate for the use of certain credit risk mitigants. When individuals with expertise in insurance or structured risk management join a bank, they can push for the adoption of risk distribution mechanisms that may have previously been underutilised or entirely ignored.

Another interviewee reinforced this point by explaining how their own career background led to a shift in their bank's approach to credit risk mitigation:

> *"Insurance is a business that people don't understand. They think they do, but they don't. We began to do insurance when I joined the bank as I had been a broker before" (B37).*

This quote highlights two important dynamics. First, many bankers believe they understand credit risk mitigants but lack the technical expertise to use them effectively. Second, when professionals with prior experience in insurance or risk distribution join a bank, they can successfully influence internal policies and expand the institution's risk mitigation toolkit.

The analysis revealed that bankers' knowledge and professional background play a critical role in the use of credit risk mitigants. The following findings highlight how individual expertise, or the lack thereof, can influence trade finance decisions and determine whether risk mitigation tools are effectively applied in practice.

- Some bankers lack awareness of available credit risk mitigation tools (e.g., short-term ECA products), even in large international institutions.
- The use of credit risk mitigants is often person-dependent. Bankers with previous experience in insurance or risk distribution are more likely to introduce and promote these tools.
- Human capital, in the form of knowledge and professional background, significantly affects trade finance decisions and access to risk mitigation mechanisms.

4.3.3 Banker´s Personality Traits

Insurance companies offer coverage for letters of credit, providing banks with an alternative way to mitigate risk in trade finance transactions. Banks can approach insurers directly or use specialised brokers who act as intermediaries to obtain quotes. The presence of brokers in the insurance market allows those new to trade finance to access quotes without needing pre-existing industry

contacts. This makes the insurance option particularly attractive for banks that lack a well-established network in trade finance risk distribution.

In contrast, the bank-to-bank market operates without brokers, meaning that bankers must develop their own industry relationships and have a strong understanding of which banks can take on different types of risk. This structural difference between the insurance market and the bank-to-bank market has a direct impact on how bankers choose their risk mitigants. Those with well-established contacts in the bank-to-bank market often prefer to use it rather than seeking insurance, partly to leverage their existing relationships and partly due to concerns about their professional value.

One banker openly admitted that their personal network in the secondary market influenced their preference for bank-to-bank risk distribution over other mitigants:

> *"I mostly use MRPAs on the secondary market as my contacts in the market are good, and I don't want to use other credit risk mitigants, which could make me redundant in the future. My contacts are my best asset. Anybody can use a broker" (B12).*

This statement suggests that professional security and individual career prospects can shape decision-making in trade finance. For some bankers, maintaining and expanding their contacts in the bank-to-bank market is an essential part of their career strategy, making them hesitant to adopt alternative risk mitigation tools that could reduce the importance of their role.

Some interviewees were very sincere and reported that sometimes the high or low willingness to work could also be a driver in selecting credit risk mitigation. While trade finance bankers are expected to act in the best interests of their institution, some admitted that personal effort levels and workload considerations sometimes influenced their choices.

One banker candidly described how day-to-day pressures could prevent them from exploring alternative risk mitigants:

> *"I have to confess that sometimes we don't explore mitigants just because we are busy or lazy, especially if there are other deals on the table that are easier to do" (B11).*

This highlights a reality in trade finance: while bankers are responsible for structuring risk-mitigated transactions, the complexity of finding and negotiating mitigants can make simpler deals more appealing, particularly in high-pressure work environments. The level of motivation to explore credit risk mitigants can fluctuate depending on workload, available time, and the relative ease of completing transactions without additional structuring.

Another participant emphasised their preference for using brokers rather than directly engaging with the bank-to-bank market, explaining that brokers simplify the process by handling negotiations and securing offers:

> *"We have an excellent insurance program with a broker. That's our first option. I don't have time to explore other options" (B35).*

This statement indicates that convenience and efficiency are key factors influencing risk mitigation selection. While the bank-to-bank market requires active engagement and relationship management, working with an insurance broker offers a streamlined process where much of the legwork is outsourced. This is particularly appealing for trade finance professionals who are under time constraints or handling multiple deals simultaneously.

Another recurring issue raised by participants was the lengthy approval process required to establish relationships with new credit risk mitigant providers. Many bankers expressed frustration with the time required to become an approved confirming bank for MDBs such as the International Finance Corporation (IFC) or the African Development Bank (AfDB).

One participant described their experience of attempting to work with MDBs but ultimately deciding that the approval process was too burdensome:

> *"I don't use MDBs. When I asked how long the approval process would take, for example, IFC told me it would be six months to get approved, and the African Development Bank told me eighteen months. So, why would I bother?" (B13).*

This reflects a practical challenge in trade finance. While MDBs provide valuable risk mitigation solutions, particularly for transactions in emerging markets, the long onboarding process discourages banks from working with them. If a trade finance professional is focused on closing deals efficiently, they are unlikely to prioritise mitigants that require extended administrative processes before they can be used.

A concerning trend observed in the interviews was the low level of interest in securing mitigants for small transactions**,** particularly those involving SMEs. Some bankers admitted that they prioritised larger deals because they required the same amount of effort but yielded higher profits.

One participant described their preference for large transactions and their lack of interest in seeking mitigants for SME deals:

> *"I prefer to do big transactions, and I don't care about the small deals from SMEs. If we don't have a line, we just decline" (B5).*

This approach is problematic because the global trade finance gap is most severe for SMEs and businesses in emerging markets. According to the International Chamber (ICC, 2020), SMEs face the highest rejection rates when applying for trade finance, despite their significant contribution to economic growth and job creation. If bankers actively avoid mitigating risk for small transactions, this reinforces the barriers that SMEs already face in accessing trade finance.

The findings also indicate that individual personality traits, effort levels, and personal motivations significantly shape the use of credit risk mitigants in trade finance. Decisions are often influenced not only by institutional policies or regulatory frameworks, but by bankers' preferences, networks, and willingness to engage with more complex or time-consuming transactions. The following points summarise how these behavioural factors impact the selection and application of risk mitigation tools.

- Personal motivations, such as preserving one's professional network or maintaining perceived role value, influence the choice of credit risk mitigants. Some bankers prioritise tools, such as the bank-to-bank secondary market, that rely on their individual relationships and connections.
- Networking skills are a key factor in determining which mitigants are used. For example, participation in the secondary bank market requires strong contacts and trust-based relationships with other institutions. Bankers with robust networks in this space are more likely to use it over alternatives like insurance, which can be accessed through brokers and does not depend on personal connections.
- Bankers may avoid using certain mitigants due to time constraints, administrative burden, or limited personal motivation, especially when alternative transactions are easier or quicker to execute.
- Risk mitigants that require long onboarding processes (e.g. MDB guarantees) are often deprioritised in favour of more accessible or familiar tools.
- Small transactions, particularly those involving SMEs, are frequently neglected because they involve a similar workload to larger deals but generate less income, reducing bankers' willingness to invest time in mitigating their risks.

Chapter 5
Discussion

5 Discussion

This chapter discusses the findings of the research in light of the existing literature and practical consequences, examining the barriers that hinder the application of credit risk mitigants by banks in their trade finance operations. First, the discussion focuses on regulatory constraints, analysing how compliance requirements, particularly those related to AML/KYC regulations and capital requirements, impact banks' ability and willingness to use credit risk mitigation tools.

Next, the analysis shifts to organisational constraints, exploring the internal strategic and structural factors within trade finance departments of banks that influence risk management decisions. This includes considerations such as departmental silos, incentive structures, and the alignment of trade finance operations with broader institutional goals.

Following this, the discussion delves into personal constraints, examining how individual bankers' knowledge, risk perception, work habits, and professional incentives shape decision-making in trade finance. These factors highlight the human element in financial risk management, revealing how subjective preferences and career considerations can affect the application of credit risk mitigants.

Finally, the chapter outlines the practical implications of the findings for bank management, offering insights into how financial institutions can adapt their policies and operational frameworks to enhance the effectiveness of credit risk mitigation strategies in trade finance. Strengthening these strategies may enable banks to confirm a greater number of letters of credit, ultimately contributing to a reduction in the trade finance gap.

5.1 Regulatory Constraints to Credit Risk Mitigation in Trade Finance

The findings of this study reinforce and extend prior research on the impact of stringent anti-money laundering (AML) and Know Your Customer (KYC) regulations on trade finance accessibility (Auboin & DiCaprio, 2017; Auboin, 2021). Specifically, this study highlights how these regulatory constraints contribute to the rejection of letter of credit (LC) confirmations, a crucial mechanism for facilitating international trade. While credit risk mitigants theoretically serve to reduce counterparty and country risk, their effectiveness is significantly constrained by the requirement that issuing banks must have an approved KYC status. Consequently, even when risk mitigation instruments fully secure transactions, banks frequently reject LC confirmations due to compliance restrictions, reaffirming the decisive role regulatory barriers play in limiting access to trade finance.

The evidence gathered from the qualitative data aligns with broader concerns in the financial sector regarding the rising cost of regulatory compliance and the significant time required to complete the entire process. Over the past two decades, banks have been forced to streamline their correspondent relationships to minimise operational and financial strain, prioritising relationships with institutions that generate sufficient revenue to offset compliance costs. This finding, commonly referred to as de-risking, has led to a 20% reduction in correspondent banking relationships since the 2008 financial crisis, with the most severe impact on smaller banks and financial institutions in developing economies (Auboin, 2021).

While KYC and AML regulations play a crucial role in ensuring financial integrity and mitigating illicit activities, their unintended consequences have created significant barriers to banks. As compliance costs continue to rise, it is likely that financial institutions will further consolidate their correspondent relationships, leaving an increasing number of firms struggling to access vital

trade finance services. These findings align with the findings of Parra Moyano & Ross (2017), who identified the rising cost of KYC compliance as one of the most significant challenges faced by banks. The consequences of this shift have been particularly severe for local banks in developing economies, which rely heavily on correspondent banking relationships to facilitate international trade. Henderson & Smallridge (2019) provide further insight into how increasing regulatory requirements and compliance costs have led banks to engage in a process known as "de-risking." This strategy involves terminating client relationships that are deemed too costly or risky to maintain, thereby reducing the availability of trade finance services. As a result, many smaller financial institutions and businesses operating in emerging markets find themselves cut off from the global financial system, limiting their ability to access essential funding for trade.

Empirical research further supports the link between de-risking and the increasing rejection of trade finance transactions. DiCaprio & Yao (2017) quantified an 8% rise in the rejection rate of trade finance transactions as a direct consequence of the closure of correspondent banking relationships. This underscores the far-reaching implications of heightened regulatory scrutiny, as rising compliance costs and de-risking strategies continue to reshape the global trade finance landscape.

The increasing rejection of trade finance transactions due to KYC-related constraints presents a significant challenge for the global financial system. As compliance costs continue to rise, financial institutions are likely to consolidate their correspondent networks further, making it even harder for smaller banks and businesses to access trade finance.

The participants of this study also explained that accounting requirements and capital regulations significantly impact the practical application of credit risk mitigants in trade finance**.** While these instruments are designed to reduce counterparty and country risk, their effectiveness is often constrained by

internal bank policies, regulatory frameworks, and capital treatment under Basel regulations. These findings are consistent with previous literature. For instance, Agur (2013) discusses how higher capital requirements prompt banks to shrink their balance sheets to maintain compliance. Similarly, Umar et al. (2018) find that as regulatory capital requirements increase, the liquidity created by banks decreases, leading to tighter trade finance conditions. The impact of regulatory changes on trade finance volumes was observed in Turkey following the adoption of Basel II, where the volume of letters of credit issued for counterparties with higher risk weights declined (Demir et al., 2017).

Basel capital requirements have been a major driver of the trade finance gap, as reported by 62.1% of surveyed banks in the 2021 report by Kim et al. (2021). This study expands on that driver by detailing how banks approach capital relief accounting when using credit risk mitigation. The findings demonstrate that while risk mitigants provide essential tools for managing counterparty and country risk, their effectiveness is often limited by internal bank policies, regulatory capital treatment, and the broader de-risking strategies employed by financial institutions. Consequently, as compliance requirements continue to evolve, banks must navigate an increasingly complex landscape to maintain access to trade finance while ensuring regulatory adherence and financial stability. The section on implications for banks outlines potential solutions to counteract these barriers.

These regulatory findings have several important consequences for the practical application of credit risk mitigants and the acceptance or rejection of trade finance transactions.

First, the rising costs and time-consuming nature of KYC processes have led banks to reduce the number of correspondent banking relationships, particularly with institutions considered less profitable or located in higher-risk jurisdictions. This de-risking strategy has disproportionately affected smaller banks and financial institutions in developing economies, limiting their access

to the global financial system and reducing their ability to participate in trade finance.

Second, the need to have a fully approved KYC relationship in place, even when credit risk is entirely mitigated by instruments such as MDB guarantees or private insurance, significantly limits the usefulness of these mitigants. Banks frequently reject letters of credit issued by institutions that lack KYC approval, regardless of the strength of the risk mitigation. This demonstrates how regulatory compliance requirements can override commercial and credit considerations.

Third, due to the regulatory obligation to maintain up-to-date KYC documentation, banks often review and close existing counterparty relationships that are not actively used or commercially profitable. At the same time, they are generally reluctant to open new counterparty relationships unless there is a strong business case, given the operational burden of the KYC process. As a result, exporters seeking confirmation of letters of credit from lesser-known or new banks often see their transactions rejected.

In parallel to KYC-related barriers, the findings also show that the limited capital relief provided by certain credit risk mitigants, particularly private insurance and multilateral guarantees, reduces their attractiveness to banks. Funded transactions, which provide more favourable capital treatment under regulatory frameworks, are therefore preferred.

Furthermore, internal bank policies that require full risk allocation to the issuing bank, regardless of external mitigation, directly reduce the likelihood of confirming letters of credit, particularly in cases where credit lines are constrained.

The requirement to maintain gross credit limits, even when part of the exposure is mitigated, further restricts the use of mitigants. Banks are still required to

allocate credit for the entire transaction value, which limits operational flexibility.

In addition, the inconsistent capital treatment of different types of mitigants, such as MRPA agreements versus insurance, results in uneven application. This fragmentation discourages the use of mitigants that do not offer recognised regulatory capital benefits, even when they offer real risk reduction.

Finally, the preference for funded risk distribution, driven by balance sheet and regulatory considerations, limits the development and adoption of alternative mitigation mechanisms. As a result, banks may reject trade finance transactions and not apply credit risk mitigants due to internal accounting and capital constraints, contributing to the persistence of the trade finance gap.

5.2 Organisational Constraints to Credit Risk Mitigation in Trade Finance

Profitability is one of the key factors identified in the literature as a reason for the rejection of trade finance transactions. Trade finance, particularly in its short-term forms such as letters of credit, is widely recognised as a low-margin business for banks. When the additional cost of credit risk mitigants is introduced, the already limited profitability of these transactions can become insufficient to justify the effort involved.

This observation is consistent with the findings of DiCaprio & Yao (2017), who identified a lack of profitability as a primary reason for banks' reluctance to engage in certain trade finance operations. Their study showed that financial institutions often avoid transactions that do not yield adequate returns, especially when operational and compliance costs are considered. In a similar vein, Auboin (2015) noted that trade finance is a highly competitive segment, subject to intense pricing pressure, and characterised by narrow margins. Unlike more lucrative financial services such as investment banking or structured

lending, trade finance generates limited revenue, making it less attractive for resource allocation.

Further empirical evidence is provided by Kim et al. (2021), whose survey of 79 banks revealed that 50% of respondents cited high transaction costs or low fee income as reasons for rejecting trade finance applications. This highlights a structural challenge within the industry: the need to support global trade while ensuring that transactions remain economically viable under banks' internal profitability thresholds.

This thesis shows that this profitability-driven decision-making also has significant implications for the use of credit risk mitigants. When the cost of these instruments is perceived as too high, banks tend to favour internal exposure management strategies or to reject the transaction altogether, rather than pursuing external risk transfer. This may result in increased credit concentration, as institutions limit their operations to familiar counterparties and geographies where they can avoid additional mitigation costs. Over time, this behaviour could contribute to the widening of the global trade finance gap, with small and medium-sized enterprises (SMEs) and institutions in emerging markets being disproportionately affected.

Furthermore, the findings also suggest that decisions regarding risk mitigation are not always based on objective cost-benefit analyses. Instead, banks often rely on subjective perceptions of cost, disregarding the potential strategic advantages that credit risk mitigants can offer. These instruments can support portfolio growth, facilitate entry into higher-risk jurisdictions, and help institutions remain compliant with regulatory capital requirements. However, when seen merely as an added expense, their broader benefits may be overlooked.

The findings regarding departmental procedures reveal that the absence of standardised internal frameworks and the presence of bureaucratic bottlenecks significantly hinder the effective use of credit risk mitigants in trade finance.

When a trade finance banker must seek multiple approvals or navigate internal politics to apply risk mitigation tools, transactions are often delayed or rejected altogether. This limits the institution's ability to manage risk proactively and reduces the likelihood of using instruments such as insurance, guarantees, or unfunded participations, even when they are appropriate. In contrast, previous studies have shown that cohesive and well-aligned teams are better positioned to coordinate quickly and efficiently (Bayraktar, 2017), which contributes to operational success and facilitates the timely application of credit risk mitigants. Over time, such inefficiencies can restrict a bank's capacity to grow its trade finance portfolio, particularly in higher-risk markets where mitigants are most needed. The inability to act swiftly and flexibly also puts banks, especially regional ones, at a competitive disadvantage compared to global institutions with more agile internal structures.

Krummaker (2019) noted that larger firms are more likely to develop comprehensive insurance strategies due to their access to resources and expertise. Similarly, in the trade finance sector, our findings suggest that the size of a bank's trade finance department significantly impacts its demand for credit risk mitigants. Banks with limited personnel are less likely to explore diverse risk mitigation options and may instead focus on the most straightforward and resource-efficient solutions.

The limited scale of trade finance departments in smaller banks restricts their ability to fully leverage the available credit risk mitigation tools. Without sufficient personnel to manage the origination, structuring, and distribution of transactions, these banks are more likely to decline deals that require additional effort, even when mitigants could reduce the underlying risk. This results in missed opportunities, especially in transactions involving emerging market

counterparties. Furthermore, reliance on brokers for insurance, while operationally efficient, can lead to higher costs or suboptimal coverage and creates a dependency on external agents for risk management. Ultimately, the lack of internal resources constrains the development of a diversified risk mitigation strategy, potentially increasing portfolio concentration, reducing trade finance volumes, and perpetuating exclusion from global trade flows for higher-risk regions.

The inability to integrate credit risk mitigants into IT booking systems is a significant challenge for several banks, preventing them from fully leveraging risk mitigation tools such as insurance and unfunded participation. Legacy IT infrastructure, lack of investment in technology, and system incompatibilities with regulatory frameworks create barriers to efficient trade finance operations. The findings of this subtheme align with existing research on the critical role of IT systems in financial institutions. Kuhn & Morris (2017) emphasise that IT infrastructure is vital for the efficient functioning of firms and has a direct impact on financial performance. Banks that fail to invest in modern IT solutions risk falling behind their competitors, particularly in highly specialised areas such as trade finance, where transaction complexity requires advanced technological capabilities.

Moreover, Rabbani et al. (2023) highlight that a bank's market share is closely linked to its ability to implement innovative financial processes. In the context of trade finance, banks with robust IT systems can process transactions more efficiently, improve risk management, and expand their business by offering a wider range of credit risk mitigants. Conversely, banks with outdated systems face operational inefficiencies, reduced competitiveness, and higher transaction costs due to manual workarounds.

One of the key consequences of inadequate IT infrastructure is the limitation it imposes on the confirmation of letters of credit. If banks cannot accurately record capital and credit relief associated with risk mitigation instruments, they are likely to reject transactions that they might otherwise have approved. This

not only reduces the volume of trade finance transactions but also limits financial inclusion for businesses that rely on letters of credit to engage in international trade.

The approach that banks take towards trade finance varies significantly depending on their broader business strategy and risk appetite. While some financial institutions actively use credit risk mitigants to expand their trade finance activities, others treat trade finance as a secondary business line and choose to limit their exposure. This strategic decision is often driven by internal resource allocation priorities, institutional conservatism, and a preference for maintaining a tightly controlled risk profile.

Academic research supports these findings, demonstrating that banks' engagement in trade finance depends on factors such as size, risk tolerance, and business focus. Niepmann & Schmidt-Eisenlohr (2017) discuss how banks' risk appetite influences their engagement in trade finance. Their study finds that banks with a more risk-averse approach tend to reject transactions from higher-risk countries, even when viable risk mitigants are available. This aligns with the observations from the interviews, where some banks explicitly stated that they only conduct business in jurisdictions where they feel comfortable, regardless of potential risk mitigation options. Asmundson et al. (2011) examine how financial institutions allocate resources to different business lines, showing that trade finance is often deprioritised in favour of higher-margin activities such as corporate lending or investment banking. This explains why some banks choose not to invest in credit risk mitigation solutions that would allow them to expand their trade finance capabilities.

Given the critical role of trade finance in global commerce, banks that adopt a more proactive approach to risk mitigation could help bridge the trade finance gap and support international trade growth. However, without a shift in strategic priorities or institutional risk policies, many banks will continue to decline transactions rather than seeking ways to facilitate them through credit risk

mitigants. Future research and policy discussions should explore ways to incentivise banks to expand their trade finance operations, ensuring that businesses around the world have access to the financial instruments they need to participate in global trade.

The issue of limited product knowledge within banks has been recognised in previous research as a significant constraint in trade finance. Kim et al. (2021) found that 31.4% of the 79 banks surveyed identified bank staff's lack of familiarity with trade finance products as a barrier to approving trade finance requests. This research extends that finding by identifying a more specific issue: a lack of understanding among senior management regarding the functioning and benefits of credit risk mitigants.

The research highlights how reputational and relationship management considerations shape banks' decisions regarding risk distribution in trade finance. Even when risk mitigants such as unfunded risk participation enable banks to confirm letters of credit without available internal credit lines, the reputational risk associated with selling 100% of the exposure often discourages banks from proceeding. Institutions may reject transactions not because of risk concerns, but to avoid appearing as though they are offloading undesirable assets, thus limiting the operational flexibility that credit risk mitigants are designed to provide. Following the 2008 global financial crisis, the banking industry has placed greater emphasis on reputational risk management, with many financial institutions establishing formal frameworks to monitor and mitigate potential damage to their credibility (Adeabah et al., 2023).

Concerns over damaging correspondent relationships can lead banks to decline the use of mitigants altogether, especially in cases where internal limits have been suspended due to credit concerns. Selling such exposure might be interpreted as a lack of confidence in the issuing bank, potentially harming long-term institutional relationships. As a result, even when mitigants could technically allow for transaction approval, the reputational and relational risks prompt banks to reject the transaction instead.

This cautious approach has broader implications for the trade finance market. By restricting the use of credit risk mitigants due to non-financial considerations, banks reduce their capacity to support clients in emerging or higher-risk markets. In turn, this contributes to the persistence of the trade finance gap, particularly for counterparties that rely on letters of credit for cross-border business. Ultimately, the strategic importance of maintaining reputation and relationships may outweigh the immediate benefits of credit risk mitigation, limiting its full potential as a risk management tool.

5.3 Personal Constraints to Credit Risk Mitigation in Trade Finance

The findings related to individual-level constraints reveal how bankers' compensation structures, personal experience, preferences, and work habits can significantly influence the selection and application of credit risk mitigants in trade finance. These individual drivers do not operate in isolation but are embedded in broader institutional practices and cultural norms that can either reinforce or challenge sound risk management.

Misaligned compensation structures can have significant consequences for trade finance operations and risk management. If bankers are discouraged from using credit risk mitigants due to bonus allocation policies, banks may face higher levels of credit concentration, increased exposure to counterparty risk, and lower trade finance volumes. Additionally, these internal conflicts can create inefficiencies, as bankers may prioritise certain types of transactions based on financial incentives rather than risk-adjusted profitability.

These findings resonate with the agency theory framework, which identifies a misalignment between the interests of agents (employees) and principals (shareholders or stakeholders) as a core governance issue. As highlighted by Sakawa et al. (2012), properly designed incentive structures can improve firm performance by aligning employees' objectives with corporate goals. However,

when compensation is misaligned, it can lead to distorted risk-taking behaviour and decision-making that prioritises personal financial gain over the overall interests of the institution.

In the context of trade finance, such distortions are particularly problematic. As the interviews revealed, bankers may deprioritise the use of credit risk mitigants, even when appropriate, simply because these do not contribute to their bonus metrics or may reduce their autonomy over the deal. This not only exposes the institution to greater concentrations of credit and country risk, but also undermines the intended purpose of risk mitigation instruments. This misalignment between personal financial incentives and institutional risk strategy is a classic example of the agency problem in financial decision-making (Sakawa et al., 2012), and it can lead to inefficiencies in how trade finance risk is distributed and managed.

This study also highlights the critical role that knowledge and experience play in trade finance distribution. Many banks, including large global institutions, lack awareness of the full range of credit risk mitigants available, leading to missed opportunities and unnecessary transaction rejections. The findings reinforce the argument that human capital is a key determinant of success in banking, as the expertise of individual professionals directly impacts how institutions approach risk management.

The banking sector relies heavily on human capital, with employee expertise playing a critical role in shaping institutional performance. Milošević et al. (2021) argue that the knowledge and experience of banking professionals are key determinants of a bank's competitive advantage. The findings from this study support this perspective, demonstrating that trade finance decisions are directly influenced by the level of knowledge and experience within a bank's workforce.

The importance of human capital in trade finance has been previously recognised in surveys conducted by the Asian Development Bank. Auboin & DiCaprio (2017) found that banks often reject trade finance transactions not due

to credit risk concerns but due to staff's lack of knowledge about how to process a letter of credit. This research extends that conclusion by showing that banks also reject transactions due to a lack of knowledge about credit risk mitigants, further limiting access to trade finance solutions. Similarly, A. Braun et al. (2023), in the context of commodity trade finance, highlight that credit insurance is more commonly used where banks have accumulated knowledge and experience with the product. This underscores that expertise not only reduces the likelihood of rejection but also facilitates the adoption of effective risk mitigation tools.

The mobility of bankers between institutions and industries has a significant influence on the adoption of risk mitigation tools. Professionals with prior experience in insurance, ECAs, or other active risk distribution markets can drive internal change within banks, encouraging the use of credit risk mitigants that might otherwise be overlooked. Kauko (2009) finds that a banker's education and age strongly impact a bank's financial performance, suggesting that human capital development is a significant driver of success in banking. Similarly, the interviews conducted for this study indicate that a banker's previous professional experience, particularly in institutions that actively use credit risk mitigants, directly influences whether those tools are adopted in their current workplace.

Beyond incentives and knowledge, this study finds that behavioural and personality-related factors also influence the application of credit risk mitigants. Some bankers prefer to use the bank-to-bank market over insurance simply because it aligns with their personal networks, thus reinforcing their professional value within the organisation. This behaviour can be interpreted as a coping strategy in response to job insecurity (Astarlioglu et al., 2011). Others admitted to avoiding certain mitigants, not due to regulatory or credit concerns, but due to time constraints, convenience, or a lack of interest in dealing with complex or small transactions. These findings reveal that, despite the formal and regulated nature of the banking industry, decision-making is often shaped

by informal motivations, individual risk perceptions, and effort allocation. This behaviour is consistent with what Francis et al. (2015) describe as a misalignment between individual and organisational objectives. Managers' goals do not always align perfectly with the bank's broader profit-maximising strategies, especially when personal workload and convenience come into play. Bertrand & Mullainathan (2003) further illustrate this phenomenon with the concept of "quiet life" preferences, whereby managers avoid difficult decisions or time-intensive tasks in order to reduce stress and maintain comfort in their roles.

This person-dependent approach undermines the consistency and scalability of risk distribution strategies. When the choice to use a mitigant relies on the banker's individual relationships, availability, or motivation, it becomes difficult for banks to ensure equal access to trade finance solutions across regions, client types, or transaction sizes. In particular, SMEs and institutions in emerging markets, who often rely on risk mitigation to access international credit, are disproportionately affected by this subjectivity. The reluctance to mitigate small deals because they require the same effort as larger ones but offer lower profitability is especially problematic, given that SMEs are the most excluded segment in global trade finance (ICC, 2020).

Based on the analysis of the findings related to individual constraints, several consequences can be identified in the practical application of credit risk mitigants and in the acceptance or rejection of trade finance transactions.

Firstly, misaligned compensation policies often lead to suboptimal risk management decisions. When certain credit risk mitigants, such as insurance, are excluded from bonus calculations or require sharing profits with other departments, bankers may avoid using them, even when they would enable the bank to confirm more transactions safely. As a result, banks may miss opportunities to diversify risk or support additional trade flows, particularly in higher-risk or emerging markets. This not only limits the bank's capacity to

expand its trade finance business but also contributes to market inefficiencies and financial exclusion, especially for small and medium-sized enterprises.

Secondly, the lack of knowledge or professional experience among trade finance bankers significantly affects the adoption of credit risk mitigation tools. The limited awareness of available instruments, such as short-term ECA products, results in unnecessary transaction rejections. Furthermore, the person-dependent nature of risk mitigant usage, where bankers with previous experience in insurance or distribution tend to champion these tools, creates inconsistency across institutions. This variability undermines the scalability and institutionalisation of credit risk mitigation practices.

Thirdly, behavioural and personality-driven factors, such as a banker's effort level, risk appetite, or reliance on personal networks, have a direct impact on which mitigants are selected and whether a transaction is pursued at all. The preference for familiar channels like the bank-to-bank market, particularly when supported by strong personal contacts, discourages exploration of alternative mitigants. Likewise, mitigants that require long onboarding processes, such as MDB guarantees, are frequently deprioritised due to the time investment required. Finally, transactions involving smaller counterparties or SMEs are often rejected outright because they generate lower income relative to the time and effort involved, reinforcing the global trade finance gap.

In conclusion, the findings related to individual-level constraints illustrate how personal incentives, knowledge gaps, and behavioural factors can significantly limit the effective use of credit risk mitigants in trade finance. While regulatory frameworks and institutional policies establish the formal environment in which decisions are made, it is often individual motivations, shaped by bonus structures, professional experience, and personal networks, that ultimately influence whether a transaction is accepted or rejected. These constraints not only create inefficiencies and inconsistencies in risk management but also restrict the ability of banks to support underserved markets and reduce the trade

finance gap. Addressing these issues requires not only technical and organisational reforms, but also cultural and human capital development to align individual behaviour with institutional risk strategy and global trade inclusion goals.

5.4 Practical Implications for Banks

This study reinforces the need for regulatory frameworks that strike a balance between financial security and accessibility. In light of the findings, this section presents a set of policy recommendations and institutional measures aimed at addressing the regulatory, organisational, and personal barriers that limit the effective use of credit risk mitigants in trade finance. These proposals are intended to support both regulatory bodies and financial institutions in enhancing access to trade finance for exporting and importing companies, as well as banks from all countries, whether investment-grade or emerging markets.

Table 7 presents a summary of the main policy and institutional recommendations proposed to address the regulatory constraints identified in this study. It is divided into two sections: measures aimed at overcoming KYC-related barriers, and those focused on mitigating the impact of capital and accounting requirements on the use of credit risk mitigants. Each point will be discussed in detail below.

A more coordinated and efficient approach is essential to address the challenges associated with KYC requirements. The establishment and broader adoption of centralised KYC utilities or shared platforms, whether at the national, regional, or international level, would significantly reduce the administrative burden and costs associated with client onboarding. These mechanisms would facilitate access to verified information and streamline due diligence procedures across institutions. In parallel, regulatory authorities should promote a risk-based approach to KYC, enabling banks to tailor their procedures according to the

transaction's risk profile, particularly in the case of low-risk, short-term trade finance operations.

Table 7: *Policy and Institutional Recommendations to Address Regulatory Constraints*

Recommendations for the impact of KYC-related barriers
• Promote centralised KYC utilities or shared platforms • Encourage proportional or risk-based KYC approaches • Strengthen support for KYC onboarding in emerging markets • Recognise mitigants in KYC assessments
Recommendations for capital and accounting-related barriers
• Harmonise capital treatment for all recognised credit risk mitigants • Encourage regulatory recognition of private insurance markets • Align internal credit policies with actual risk mitigation outcomes • Allow for net exposure-based credit limits when mitigants are used

Source: Developed by the author

Additional support should be directed toward financial institutions in emerging markets, which are disproportionately affected by the operational complexity of KYC requirements. In this context, development finance institutions and multilateral development banks could provide technical assistance and intermediary services to bridge these gaps and improve access to international banking networks. Moreover, regulators should consider allowing the presence of robust credit risk mitigants, such as guarantees issued by MDBs, to serve as a supporting factor in the KYC assessment, particularly in well-structured and low-risk transactions.

With regard to accounting and capital-related constraints, greater regulatory consistency is necessary to ensure the fair treatment of all recognised credit risk mitigants. The findings of this research highlight the limitations stemming from the unequal capital relief granted to certain instruments, such as private insurance or MDB guarantees. Regulatory bodies should work towards

harmonising the recognition of these instruments under the Basel framework, particularly when the mitigant demonstrably transfers risk and meets legal and credit quality standards.

At the institutional level, banks are encouraged to revise internal credit policies that currently prevent the recognition of mitigants in credit line management. Policies requiring full risk allocation to the issuing bank, even when mitigation tools are present, limit the potential to expand trade finance capacity. Similarly, the operational practice of requiring gross limits for all transactions, irrespective of partial mitigation, should be revisited to allow for greater flexibility and more efficient use of available credit.

Beyond regulatory and policy reforms, an internal cultural and strategic shift is also needed. Rather than treating credit risk mitigation as a tool used only in exceptional cases or for capital relief purposes, banks should integrate these instruments into their core trade finance strategy. This would allow for broader application, including in transactions involving higher-risk markets or institutions with limited direct credit lines. Strengthening internal expertise through training and awareness programmes would also help reduce resistance and foster greater confidence in the use of risk mitigation tools.

Lastly, stronger collaboration between banks, MDBs, private insurers, and fintech platforms can facilitate the use of credit risk mitigants. Streamlined operational procedures, standardised documentation, and digital solutions can significantly reduce the time and resources required for execution, enhancing the scalability and efficiency of risk distribution.

A key objective of this research is to offer practical insights that support the broader adoption of credit risk mitigation tools in trade finance. The empirical findings revealed a wide range of organisational constraints that hinder the effective use of credit risk mitigants, ranging from internal procedures and IT limitations to strategic misalignment and lack of management expertise. I propose concrete institutional and policy measures to overcome these barriers.

These recommendations have been structured around the main themes identified in the qualitative analysis and are intended to assist both financial institutions and regulators in enhancing the operational and strategic integration of credit risk mitigants. Table 8 summarises these proposals according to the specific organisational challenges they are meant to address.

The recommendations presented in Table 8 offer a comprehensive and practical response to the organisational constraints identified in this study. Derived directly from empirical findings, these measures aim to enhance the operational, procedural, and strategic conditions that currently limit the effective use of CRMs in trade finance.

Several interventions are proposed to address issues related to profitability. Developing internal tools that assess the cost-effectiveness of CRMs would allow banks to make more informed decisions, shifting away from subjective perceptions of cost and towards objective risk-return analysis. The adoption of risk-adjusted return metrics in evaluating transactions could help demonstrate the value that CRMs bring in terms of capital relief and risk distribution. Additionally, establishing budgetary support for low-margin but strategically important transactions, such as those involving SMEs or high-risk jurisdictions, would ensure that profitability does not come at the expense of financial inclusion. Negotiating more competitive pricing with insurers and guarantors would further help reduce the financial burden associated with these tools.

In relation to procedural inefficiencies, the standardisation of internal processes is essential. Formalising workflows for the use of CRMs and clearly delineating responsibilities across departments would reduce delays and improve execution. Streamlining approval channels, particularly in banks with layered governance structures, would allow trade finance teams to respond more quickly to opportunities. Improved interdepartmental coordination, especially between risk, operations, compliance and front office, would help align objectives and reduce friction in the deployment of risk mitigation strategies.

Table 8: *Policy and Institutional Recommendations to Address Organisational Constraints*

Recommendations for Profitability Issues
· Develop internal tools to assess the cost-effectiveness of credit risk mitigants · Use risk-adjusted return metrics in transaction evaluation · Introduce budgetary support for low-margin strategic deals · Negotiate better pricing with insurers and guarantors
Recommendations for Department Procedures
· Standardise internal procedures · Streamline approval processes · Improve interdepartmental coordination
Recommendations for Department Scale
· Invest in automation and digital tools · Create shared regional hubs or cross-functional teams · Develop scalable and simplified internal procedures
Recommendations for IT Systems
· Upgrade legacy booking systems · Align IT capabilities with credit policy changes · Create manual processing protocols for exceptions · Allocate dedicated tech investment for trade finance
Recommendations for Business Strategy
· Position trade finance as a strategic business line · Integrate credit risk mitigants into growth strategies · Raise awareness of CRM value among senior management · Align risk appetite frameworks with CRM capabilities
Recommendations for Management Knowledge
· Align trade finance and risk mitigation with board-level strategy · Provide executive training on risk mitigation tools · Develop internal guidelines and case studies on mitigants' benefits
Recommendations for Reputation and Relationship
· Strengthen interbank communication to clarify the rationale behind CRM use. · Foster a culture that recognises distribution as a proactive credit management strategy, not a sign of weakness

Source: Developed by the author

Where limited scale presents a barrier, investment in automation and digital solutions could alleviate the operational strain on small teams, allowing them to manage a higher volume of transactions without a proportional increase in staffing. Establishing shared regional hubs or multifunctional teams would also help optimise resource use across geographies. Simplified and scalable internal procedures are necessary to ensure that increases in trade finance activity do not overwhelm the capacity of smaller institutions.

With respect to IT constraints, upgrading legacy booking systems is a key priority. Many of the institutions interviewed still rely on outdated infrastructure that cannot accommodate some CRM techniques, such as unfunded risk participation. Aligning IT capabilities with evolving credit policies would help ensure that the use of mitigants can be properly recorded and recognised in risk systems. In the interim, the creation of manual processing protocols for exceptional cases would allow institutions to act while IT upgrades are underway. Importantly, banks should consider allocating dedicated technological investment to trade finance, an area that is often deprioritised relative to other business lines.

Strategic positioning of trade finance within the institution also plays a fundamental role. Elevating trade finance to a strategic business line and embedding CRMs into the bank's broader growth plans would encourage a more proactive use of risk mitigation tools. Raising awareness among senior leadership about the value that CRMs offer, not only in facilitating transactions but also in optimising capital and credit exposure, would support greater institutional buy-in. Aligning the institution's risk appetite framework with its capacity to mitigate credit risk would enable banks to engage more confidently in higher-risk transactions with appropriate safeguards.

Regarding the role of management knowledge, aligning trade finance and risk mitigation with board-level strategic discussions is crucial. Providing targeted executive training on the benefits and mechanics of CRMs would help reduce

institutional resistance rooted in a lack of familiarity. The development of internal guidelines and case studies showing successful applications of CRMs would further demonstrate their strategic relevance and encourage wider adoption.

Finally, in relation to concerns about reputation and interbank relationships, banks should foster a culture that recognises risk distribution as a legitimate and proactive form of credit management rather than a sign of discomfort or weakness. Strengthening communication with counterparties and explaining the rationale for the use of CRMs, particularly in cases where a portion of risk is retained, can help preserve trust and transparency in the banking network.

Collectively, these recommendations are aimed at equipping banks with the institutional frameworks, resources and strategic outlook needed to fully leverage credit risk mitigants. In doing so, they not only enhance internal risk management practices but also contribute to closing the trade finance gap, particularly in underserved markets.

A set of targeted recommendations is also proposed to address the individual-level barriers identified in this study. Table 9 presents a summary of the main policy and institutional recommendations proposed to address the individual-level constraints identified in this study. The table is divided into three sections: measures related to compensation policy reform, those aimed at improving banker knowledge and training, and actions to mitigate the influence of behavioural and personality-driven factors in credit risk mitigant selection. Each recommendation seeks to promote a more consistent and effective use of credit risk mitigants in trade finance, aligning individual decision-making with broader institutional and financial stability objectives.

In relation to compensation policy barriers, banks should consider implementing shadow accounting systems to ensure that transaction fees are recognised equally across all departments involved in a deal. This would eliminate the disincentive to use certain credit risk mitigants, such as insurance,

which often require cross-departmental collaboration. Additionally, bonus schemes should be revised to ensure that all approved risk mitigants, whether insurance, MDB guarantees or unfunded participations, are treated equally in performance evaluations. In doing so, banks would better align individual incentives with institutional objectives, promoting risk-optimised decision-making in trade finance.

Table 9: *Policy and Institutional Recommendations to Address Individual Constraints*

Recommendations compensation policies barriers
:• Implement shadow accounting to share fees fairly across departments. • Ensure equal bonus recognition for all credit risk mitigants. • Align incentives with institutional risk and trade finance goals.
Recommendations for knowledge and experience barriers
• Deliver internal training on credit risk mitigation tools. • Create knowledge-sharing platforms among staff. • Include risk mitigation modules in onboarding programmes. • Standardise practices to reduce dependency on individual expertise
Recommendations for personality and behavioural barriers
• Promote a culture focused on risk-adjusted profitability. • Require justification for non-use of available mitigants. • Build centralised contact networks for the secondary market. • Provide operational support to simplify mitigant use. • Incentivise mitigant use in SME and emerging market deals.

Source: Developed by the author

To overcome barriers related to knowledge and experience, financial institutions should develop internal training programmes on the use of credit risk mitigants, targeted at both front-office and support teams. Complementing formal training, knowledge-sharing initiatives, such as internal forums or mentorship from more experienced colleagues, can help disseminate best

practices. Moreover, risk mitigation content should be included in onboarding processes, ensuring new employees gain familiarity with these tools early on. Over time, these efforts can help institutionalise risk management knowledge, reducing dependency on individual backgrounds or informal networks.

In response to behavioural and personality-driven barriers, banks should foster a culture that rewards risk-adjusted profitability rather than just transaction volume or ease of execution. This includes requiring internal justification when risk mitigants are not used, particularly in transactions involving higher credit or country risk. Banks should also build centralised contact networks for the secondary market to reduce reliance on individual bankers' personal connections. At the operational level, providing support functions, such as centralised insurance desks or pre-approved broker panels, can make it easier and faster for bankers to apply mitigants, especially for smaller or urgent deals. Lastly, banks should incentivise the use of mitigants in SME and emerging market transactions to promote inclusion and help reduce the global trade finance gap.

In conclusion, the recommendations set out in this section underscore the practical and strategic value of credit risk mitigants in supporting a more inclusive, resilient, and efficient trade finance system. By addressing the regulatory, organisational, and individual-level barriers identified in this thesis, banks and policymakers could unlock the full potential of risk mitigation tools, not only as instruments for reducing exposure and regulatory capital but as enablers of market access and business growth. Importantly, the success of these measures depends not just on technical solutions but on a shift in institutional culture, strategic alignment, and operational integration. Ultimately, promoting a broader and more consistent use of credit risk mitigants will contribute to narrowing the global trade finance gap, strengthening financial stability, and expanding the capacity of banks to support international trade in all regions.

Chapter 6
Conclusions

6 Conclusions

This final chapter of the dissertation brings together the main contributions of the research, both to academic literature and to professional practice. From a theoretical perspective, the study contributes to the academic understanding of trade finance and credit risk mitigation by revealing and categorising the constraints that limit the effective use of these tools within banks into three groups: regulatory, organisational, and individual. It addresses a gap in the literature by providing bank-specific insights, offering a more comprehensive view of the internal and external challenges that hinder CRM adoption. On a practical level, the research offers valuable contributions for financial institutions, regulators, and policymakers seeking to improve the use of credit risk mitigants as a means to facilitate cross-border transactions and reduce the persistent trade finance gap. In addition, the chapter acknowledges the key limitations of the research and proposes several future research lines to further explore the role and functioning of credit risk mitigants in international trade.

6.1 Theoretical Contributions

This doctoral thesis makes a significant contribution to the academic understanding of credit risk mitigation in trade finance by examining the reasons behind the inconsistent use of available risk mitigation tools and the barriers that banks face in applying them. In doing so, it addresses the research questions that guided this doctoral thesis, offering a detailed explanation of why credit risk mitigants are underused in practice and how various barriers shape banks' trade finance decisions. The findings reveal that, despite the wide availability of credit risk mitigants provided by ECAs, private insurers, MDBs, and the interbank market, their use remains inconsistent across institutions. This underutilisation results in the rejection of transactions, such as the confirmation of letters of credit, which restricts international trade and deepens the trade finance gap, particularly in high-risk emerging markets.

While much of the existing literature focuses primarily on regulatory drivers (Auboin & DiCaprio, 2017; Cavoli et al., 2022; DiCaprio & Yao, 2017; Kim et al., 2021), this thesis offers a more comprehensive perspective. It identifies and develops an original framework of barriers structured across three interrelated levels: regulatory, organisational, and individual. This multi-level categorisation not only captures the complexity of the problem but also represents a theoretical contribution in itself, offering a structured lens through which future research and policy initiatives can analyse the underuse of CRMs in trade finance.

First, the thesis reinforces the significance of regulatory constraints in explaining the underuse of CRMs, while also advancing the literature by providing a more nuanced and operational understanding of how regulation affects banks' behaviour. Previous studies have acknowledged the role of compliance requirements (Auboin & DiCaprio, 2017; Auboin, 2021; Beck et al., 2023; Parra Moyano & Ross, 2017), but this research adds depth by showing how KYC obligations remain a key barrier to scaling up trade finance transactions, even when full risk mitigation is possible. Furthermore, it uncovers how inconsistencies in the interpretation and application of capital and credit relief provisions across jurisdictions and institutions introduce ambiguity, ultimately discouraging the proactive use of CRMs. This detailed account of regulatory fragmentation and its impact on internal decision-making processes provides a more practice-oriented perspective that has been largely absent from the existing literature.

Second, the thesis identifies a set of organisational barriers that hinder the effective implementation of CRMs. These include the lack of standardised procedures for CRM assessment, limited operational capacity, outdated IT systems, and concerns over the high costs associated with CRM products. Moreover, strategic decisions that deprioritise trade finance, combined with insufficient management support, often linked to a lack of awareness about the strategic value of CRMs, contribute to a weak organisational environment for

their adoption. By uncovering and systematising these internal dynamics, the study extends the literature by connecting organisational structure and risk management practices in the context of trade finance.

Third, the thesis brings a novel behavioural dimension to the understanding of CRM utilisation by uncovering individual-level constraints that shape decision-making within banks. Although the banking sector is highly regulated, this research shows that individual bankers still exercise considerable discretion in the evaluation and use of credit risk mitigants. Knowledge gaps, personal risk aversion, and misaligned incentive schemes significantly influence whether and how CRMs are used. Additionally, softer factors, such as motivation, confidence in dealing with external parties, networking skills, and concerns over job security, also play an important role in shaping attitudes towards credit risk mitigation. These findings represent an original contribution by introducing a behavioural finance perspective into the trade finance literature, offering new explanatory power to understand variations in CRM use that cannot be captured solely through institutional or regulatory lenses.

Taken together, these findings provide an integrated theoretical framework that captures the multi-level barriers limiting the effective use of credit risk mitigants in trade finance. By identifying and categorising these constraints across regulatory, organisational, individual, and institutional dimensions, this thesis offers an original and structured lens through which CRM underutilisation can be analysed. This framework not only contributes conceptually to the academic literature but also serves as a valuable foundation for future empirical work aiming to test, expand, or apply these categories in different institutional, geographic, or product-specific contexts. Moreover, the research responds to longstanding calls for bank-specific empirical evidence in the field of trade finance (Auboin, 2015, 2021; DiCaprio & Yao, 2017), helping to close a persistent gap in the literature concerning the internal use of credit risk mitigants by banks engaged in international trade finance.

6.2 Practical Contributions and Policy Implications

In addition to its theoretical contributions, this thesis also provides valuable practical insights for the trade finance industry and holds important policy implications for a broad range of stakeholders. While the conceptual framework developed in this research enhances academic understanding of why CRMs are underused, the findings also offer actionable guidance for improving CRM adoption in practice. These contributions are particularly relevant for banks, regulators, ECAs, private insurers, and MDBs, all of whom play a role in addressing the persistent trade finance gap.

The thesis suggests that more effective and consistent use of CRMs could enable banks to approve a higher volume of trade finance transactions, especially in riskier markets. This, in turn, would contribute to closing the trade finance gap by expanding access to credit and supporting international trade flows. To achieve this, coordinated action is required to address the regulatory, organisational, and individual-level barriers identified in the study.

To address the regulatory constraints, harmonising global banking regulations is essential to ensure that capital and credit relief benefits are applied uniformly to all CRM types across jurisdictions. Reducing regulatory fragmentation would give banks greater clarity and confidence in applying these tools. Additionally, the development of centralised KYC repositories would reduce compliance costs and simplify due diligence procedures, making transaction approval processes more efficient. Policymakers and international standard-setters have a critical role in promoting regulatory convergence and enabling more streamlined compliance systems.

In response to the organisational barriers identified in this thesis, banks should develop and implement standardised internal procedures for assessing and applying CRMs. This would reduce reliance on informal practices and embed risk mitigation more firmly within operational processes. Investing in robust IT infrastructure would further enhance the efficiency of CRM registration,

tracking, and monitoring, addressing technological limitations that currently hinder CRM utilisation. Furthermore, fostering stronger private-public partnerships between banks, ECAs, insurance companies, MDBs, and regulatory bodies would improve knowledge-sharing and coordination. One useful initiative could be the creation of a global dataset on trade finance and CRM usage, enabling institutions to better understand available options and benchmark their practices against peers.

Addressing individual constraints, particularly the knowledge gaps and behavioural constraints uncovered in this research, is crucial. Coordinated training programmes, developed by industry bodies and policymakers, should aim to strengthen CRM-related expertise among trade finance professionals. These initiatives should not only focus on technical knowledge but also offer practical guidance on navigating internal approval processes and understanding the strategic value of CRMs. In parallel, banks should adjust internal accounting and performance evaluation systems to ensure that the financial benefits of CRM-backed transactions are properly reflected in departmental results. Aligning incentives in this way would support a more proactive and risk-aware approach to CRM use.

In sum, this thesis highlights that reducing the trade finance gap requires more than just the availability of risk mitigation instruments; it also depends on ensuring that banks are able and willing to use them effectively. Addressing the institutional, regulatory, and human factors that hinder CRM adoption is essential to unlocking their full potential and enabling a more inclusive and resilient global trade finance system.

6.3 Limitations and Future Research Lines

In addition to the theoretical and practical contributions outlined above, this thesis inevitably presents several limitations, which open important avenues for future academic research. These limitations are not only methodological in

nature but also relate to the scope, perspective, and context of the study. Recognising them is essential to delineate the boundaries of this thesis and to propose a broader research agenda that builds on its findings.

First, the scope of the research was limited to letters of credit, which, while representing a widely used and central trade finance instrument, do not encompass the full range of mechanisms used in international trade. Instruments such as demand guarantees, forfaiting, supply chain finance, and trade-related bonds involve different risk-sharing structures and regulatory implications. The decision-making logic and constraints surrounding the use of credit risk mitigants may therefore differ depending on the product. Future studies should investigate whether the findings presented in this research, particularly those related to regulatory constraints, organisational structures, and individual behaviours, also apply to other trade finance instruments or whether they reveal alternative dynamics.

Second, this study focused on conventional practices and did not explore in detail the emerging role of digitalisation in trade finance. The increasing adoption of technologies such as distributed ledger systems, artificial intelligence, and digital platforms could transform how trade transactions are structured, monitored, and financed. These developments may not only increase operational efficiency and transparency but also reshape how banks evaluate and apply credit risk mitigants. As digital solutions continue to evolve, further research is needed to assess how they influence compliance processes, shorten onboarding timelines, and potentially reduce the subjectivity of individual bankers' decisions.

Third, the research gathered insights solely from financial institutions, focusing on bankers responsible for trade finance operations and risk distribution. This was a deliberate choice, as the study was designed to explore the demand side of credit risk mitigation, that is, how banks select, apply, and are constrained in their use of credit risk mitigants. However, this focus necessarily excludes the

perspectives of key supply-side actors such as ECAs, MDBs, and private credit insurers, who design and offer the instruments used to mitigate risk. These institutions operate under their own product mandates, internal policies, and risk appetites, which influence not only the availability of credit risk mitigants but also how and when they are offered to banks. Including their perspectives in future research would allow for a more comprehensive understanding of the credit risk mitigation ecosystem and could help identify potential misalignments or inefficiencies between supply and demand that contribute to the persistence of the trade finance gap.

Fourth, the methodological approach of this thesis was qualitative and exploratory in nature, based on semi-structured interviews. This design was instrumental in uncovering rich, nuanced insights, particularly those related to organisational dynamics and individual-level constraints. Findings concerning internal politics, misaligned incentives, personal motivations, and behavioural factors would not have been possible to capture through quantitative means alone. Building rapport with interviewees and fostering a confidential and open environment allowed participants to share candid reflections on sensitive internal processes and frustrations, insights that are critical to understanding the real barriers to the use of credit risk mitigants. Nevertheless, now that these themes and patterns have been identified through qualitative analysis, future research could use quantitative methods to validate, expand upon, or refine these findings. For instance, large-scale surveys could be deployed to examine the prevalence of certain behaviours across institutions or to assess correlations between institutional features (e.g., size, business model, geographical focus) and CRM usage patterns.

In conclusion, while this research provides a solid foundation for understanding the constraints affecting the use of credit risk mitigants in trade finance, these limitations point to the need for a more diverse and multi-method research agenda in the field of trade finance risk mitigation. Future studies could consider combining qualitative and quantitative approaches, covering a broader

range of financial instruments, technological developments, and stakeholder perspectives. Such research could further refine the framework developed in this thesis and contribute to building a more complete and actionable understanding of how credit risk is managed across international trade transactions.

As this thesis marks the beginning of my academic research career, I hope to continue deepening my research in this field and expanding it into related areas within trade finance, risk management, and financial intermediation. The findings presented here lay the groundwork for a broader research agenda that can contribute to the academic literature, inform policy discussions, and provide practical insights for financial institutions. It is my wish and aspiration that this work becomes a stepping stone towards a long-term contribution to the understanding of how credit can be more effectively distributed across borders, particularly in ways that promote global trade.

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Appendixes

Appendix 1 . List of Observed Events

Title	Host	Location	Date
Trade Finance Seminar	ITFA / ISCTE Business School	Lisbon, Portugal	October 27, 2017
Thoughts from 2018 Structuring Trade and Related Financings	Sullivan & Worcester UK LLP	London, United Kingdom	December 13, 2018
Recent Legal Developments in the Trade Finance Market and Market Adoption of the new BAFT MPRA	ITFA	London, United Kingdom	February 27, 2019
Payment Instruments and other trade documentation	Sullivan & Worcester UK LLP	London, United Kingdom	February 28, 2019
Trade Finance- where do we go from here	Sullivan & Worcester UK LLP	London, United Kingdom	February 29, 2019
ITFA 46th Annual International Trade and Forfaiting Conference	ITFA	Budapest, Hungary	September 4-6, 2019
TFX Political Risk & Trade Credit Insurance 2019	TFX	London, United Kingdom	December 4, 2019
Mega-Trends and Trade Roundtable discussion	Berne Union	London, United Kingdom	December 10, 2019
Challenges to trade and commodity finance in 2020	Sullivan & Worcester UK LLP	London, United Kingdom	January 23, 2020

Educational Trade Finance Seminar: Business development through evolving market practices and new technology options	ITFA / Banco Santander	Madrid, Spain	February 13, 2020
Trade Finance adapting to covid-19	ICC	Online	April 24, 2020
Tradecast: Looking beyond Covid-19	ITFA / Trade Finance Global	Online	May 11, 2020
Automating trade originationa and distribution	ITFA	Online	May 19, 2020
How global trade finance is being disrupted and redefined	ITFA / EY	Online	June 3, 2020
Multilaterals in the time of Covid	ITFA / FIBA	Online	June 9, 2020
Do letters of credit have a future post covid-19?	Finastra	Online	July 31, 2020
Trade Finance in 2020: annus horribilis, lessons for the future or a bit of both?	Sullivan & Worcester UK LLP	Online	November 23, 2020
Comercio exterior: Retos y Oportunidades	Cuatrecasas	Online	November 24, 2020
Trade Finance: What 2021 holds in store for trade and commodity finance	Sullivan & Worcester UK LLP	Online	January 21, 2021

Trade Finance: financing receivables-structures and issues	Sullivan & Worcester UK LLP	Online	March 25, 2021
Trade Finance Funds	Global Trade Review	Online	May 5, 2021
WTO Public Forum 2021: Trade Beyond Covid-19: Building Resilience	World Trade Organization	Geneva, Switzerland	September 28-30, 2021
ITFA year-end Market Update Seminar	ITFA	London, United Kingdom	December 6, 2021
ITFA 48th Annual International Trade and Forfaiting Conference	ITFA	Porto, Portugal	September 7-9, 2022
Trade Green Insurance Policies	CESCE	Online	March 17, 2022
Coface Country Risk Annual Conference	Coface	Madrid, Spain	May 12, 2022
Issues with letters of credit and how to deal with them	Sullivan & Worcester UK LLP	Online	September 22, 2022
Why Financial Institutions use Credit Insurance: Challenges, changes and opportunities	ICISA	Online	September 26, 2022
Public perception of trade credit insurance	ICISA	Online	September 26, 2022
ESG Report in Trade Finance	ITFA	Online	May 22, 2022

New strategic investment insurance policy	CESCE	Online	October 20, 2022
ICISA Webinar: The statue of the Industry	ICISA	Online	June 27, 2023
Coface Country Risk Annual Conference	Coface	Madrid, Spain	September 26, 2023
ECA and DFI Update	Sullivan & Worcester UK LLP	Online	February 22, 2024
Coface Country Risk Annual Conference	Coface	Madrid, Spain	June 4, 2024
ITFA SERC Education event on Trade Finance	ITFA / Banco Santander	Madrid, Spain	June 6, 2024
IfTI Global Symposium "Quo Vadis, Global Trade?"	Institute for Trade and Innovation / St Gallen University	St Gallen, Switzerland	September 4-5, 2024

Appendix 2. Interview Protocol

Interview Format:

- **Type:** Semi-structured in-depth interview
- **Initial proposed duration:** approximately 50-60 minutes
- **Mode:** In-person

Introduction key points:

- Welcome the participant warmly and express sincere gratitude for their willingness to participate in the study. Highlight the value of their expertise to the research.
- Assure the participant of strict confidentiality. Confirm explicitly that neither their name nor the name of their bank will be disclosed in any part of the study or related publications.
- Explain that their bank will be categorised based on geographical and operational scope, such as American, African, Asian, or European, followed by either 'regional' or 'global,' as appropriate. Inform the participant of their assigned pseudonym (B from banker, accompanied by a number) and the corresponding geographical category. Confirm they are comfortable with the assigned category, ensuring it accurately reflects the bank's activities.
- Gather background information by asking about the participant's years of experience at their current bank and their total years of experience in the trade finance sector.
- Reiterate the purpose of the interview and the research project. Reference the initial conversation held at the ITFA event where the study was introduced and the follow-up email detailing the study's objectives and interview questions.
- Obtain verbal consent to proceed with the interview and for the audio recording

Interview Questions:

There was a predefined list of questions for conducting each interview. However, given the semi-structured nature of the interviews, the questions covered varied depending on the specific context of each conversation. Additional questions were introduced when necessary to delve deeper into areas that emerged as insightful or critical to the research objectives. The sequence of questions was also flexible, allowing the conversation to flow naturally based on the participant's responses and the direction of the discussion.

1. Can you walk me through the process and workflows your bank follows when you receive a letter of credit to confirm? How do you approach the decision-making process to approve or decline the operation?
2. How do you handle situations where you are asked to confirm an LC from an issuing bank, but you either do not have counterparty lines available or your current lines are fully utilised? Could you describe the steps you take and any strategies you employ in these cases?
3. Are there any notable differences in managing credit risk mitigants when your credit line is fully utilised compared to when you don't have a credit line in place for a specific transaction? How do these scenarios affect your approach?
4. Could you tell me the main reasons why your bank might decline the confirmation of an LC? What factors play a significant role in this decision?
5. Can you tell me about your thoughts on the major credit risk mitigants in trade finance? What is your opinion, and how does your bank view and utilise them? Do you use all of them, or are some preferred over others?
6. Could you share your experiences and insights regarding using Export Credit Agencies to cover LC confirmations?
7. What are your views on using private insurance companies and the Lloyd's market to cover LC confirmations?

8. Could you tell me about your experience working with Multilateral Development Banks in the context of covering LC confirmations?
9. Tell me about your experience with the secondary bank market regarding covering LC confirmations.
10. Besides the risk mitigants we've discussed, have you explored any other strategies or alternatives to avoid rejecting transactions or to manage risk effectively? What has been your experience with these alternatives?

Closing question: Is there any additional insight or observations you would like to share on the subject of credit risk mitigants in trade finance based on your experience?

Closing:

- Thank the participant for their time and valuable insights.
- Reiterate the confidentiality of their responses.
- Inform the participant that you look forward to sharing the published article with them soon and hope they find it enjoyable and useful.

Appendix 3. Published Article

Publication

Bobillo-Carballo, E. and Arahuetes García, A. (2025) "Trade Finance Gap: Why Credit Risk Mitigants Are Not Applied". Global Policy (Early View. Online Version of Record before inclusion in an issue).

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Global Policy

RESEARCH ARTICLE

Trade Finance Gap: Why Credit Risk Mitigants Are Not Applied

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ABSTRACT

Banks play a vital role in global trade. However, an existing gap persists in fulfilling the demand for trade finance transactions, predominantly in developing countries with high credit and country risks. These risks can be hedged with credit risk mitigants (CRMs). This study aims to identify and analyse the barriers preventing banks from using CRMs. Employing a qualitative research approach, data were collected through semi-structured, in-depth interviews with trade finance bankers from various regions. Our study shows that, despite the availability, banks do not always use CRMs efficiently. The findings reveal a comprehensive set of factors influencing the decision to decline trade financing requests, categorised into three groups: regulatory, organisational and individual constraints. The implications of our research suggest that by managing CRMs more effectively, banks could approve more transactions, helping to close the trade finance gap. This study offers substantial contributions to the existing trade finance literature. It holds significant implications for financial institutions and a diverse spectrum of stakeholders, including exporters, importers, development banks, export credit agencies, insurance companies and policymakers. Additionally, it underscores the need for harmonised global policies to ensure consistent regulatory frameworks and facilitate smoother trade finance transactions worldwide.

1 | The Unfulfilled Demand in Trade Finance

Global trade is crucial for the growth and development of any economy, with financial institutions playing a key role in facilitating international flows through trade finance. However, financing remains a significant obstacle to trade. Several studies have reported that a lack of trade finance is one of the primary reasons for the decline in global trade (Auboin 2009; Chor and Manova 2012; Haddad et al. 2010) and accounted for approximately 15%–20% of the sharp decline in trade during the 2008–2009 financial crisis (Starnes and Nana 2020). The importance of financing for international trade and the role of financial institutions in supporting it are well-established in the literature (Amiti and Weinstein 2011; Niepmann and Schmidt-Eisenlohr 2017). Nonetheless, financial institutions may not always be willing to provide all necessary financing, leading to a trade finance gap. Therefore, it is essential to explore strategies to reduce this gap and enhance access to trade financing to facilitate global trade transactions.

The term 'trade finance gap' describes the unmet demand for trade finance, where transactions agreed upon by exporters and importers remain unrealised due to insufficient finance. The Asian Development Bank (ADB) estimated a trade finance gap of around $2.5 trillion in 2022, representing approximately 10% of global merchandise trade volumes (Beck et al. 2023). Various factors contributing to this gap have been identified, with legal and regulatory aspects, especially those related to due diligence and capital and liquidity requirements, being among the most relevant alongside non-payment risk (Auboin

Policy implications

- Policymakers should work toward harmonising global banking regulations to ensure that using CRMs provides consistent capital and credit relief benefits across all jurisdictions.
- Policymakers and the banking industry should collaborate to establish centralised KYC repositories to reduce compliance costs and streamline due diligence processes.
- Banks should develop standardised procedures for assessing and applying CRMs, ensuring consistency and transparency. Additionally, they should invest in IT infrastructure to facilitate the efficient registration, tracking and monitoring of CRMs.
- Banks should implement internal accounting systems that accurately track CRM-backed transactions, ensuring their financial benefits are properly reflected in each department's performance metrics.
- Promote public-public partnerships between banks, ECAs, insurance companies, MDBs, and regulatory bodies to create a comprehensive international dataset for trade finance and CRMs.
- Policymakers and industry associations should increase investments in learning and development programmes for trade finance bankers and bank management.

and DiCaprio 2017; DiCaprio and Yao 2017; Kim et al. 2021). Regional disparities in the trade finance gap are significant, with the highest unmet demand observed in Asia and the Pacific (34% of rejections), followed by Africa and the Middle East (24%) (Di Caprio et al. 2016). In particular, the Economic Community of West African States, comprising countries like Côte d'Ivoire, Ghana, Nigeria, and Senegal, faces an annual trade finance gap of around $14 billion, with rejection rates of 21% of requests and 25% of their total value (IFC and WTO 2022). The trade finance gap is increasing, and more research is needed to understand the drivers and develop targeted solutions.

The letter of credit (LC) is the oldest and most common trade finance instrument, particularly in emerging markets (Ahn and Sarmiento 2019; Schmidt-Eisenlohr 2013). Confirming banks are committed to paying the exporter regardless of any default by the issuing bank. One of the main reasons they reject the confirmation of LCs is the low credit rating of the issuing bank and its country risk, which can be hedged with credit risk mitigants (CRMs) (DiCaprio and Yao 2017). According to the ADB survey on the trade finance gap, a leading measure of the state of trade finance worldwide, 54% of participating banks identified the low credit ratings of issuing banks as a significant obstacle to providing trade finance services (Beck et al. 2023). This study contributes to the existing literature by examining whether banks explore risk-mitigating tools to hedge commercial and country risk before declining a LC confirmation. It also identifies the constraints that prevent them from doing so, thereby leading to transaction rejection.

Credit and country risk can be mitigated with CRMs, and these instruments can be extracted from Asmundson et al. (2011) and Cavoli et al. (2022). Export Credit Agencies (ECAs), private insurance companies, Multilateral Development Banks (MDBs), and the bank-to-bank market are the primary providers of risk mitigation in trade finance. ECAs and private insurance companies offer export credit insurance, while MDBs offer guarantees under their trade facilitation programs. Financial institutions can sell trade finance risk participations in the bank-to-bank market. These mitigants provide financial institutions with capital and credit relief. Very little is known in the literature about trade finance CRMs available to banks to prevent transaction rejections. There have been calls for further research to identify the drivers that restrict access to trade finance and improve trade finance policies (Kim et al. 2022). The challenge of accessing nonpublic data from financial institutions is cited as a reason for the limited trade finance research (Auboin 2015, 2021; DiCaprio and Yao 2017).

This study started by addressing two research questions: What drives banks to decline trade finance transactions? Do they efficiently use CRMs? To answer this, we obtained data from interviews with 38 senior trade finance bankers and decision-makers in credit risk mitigant use. Employing a qualitative methodology, we explored factors influencing banks in selecting and using CRMs for trade finance transactions, with a focus on letters of credit. The study aims to identify constraints hindering banks from using CRMs, with the goal of proposing solutions to enhance access to trade finance.

Qualitative research on the behaviour of banks regarding the use of CRMs in trade finance has not been previously undertaken. To the best of our knowledge, this is the first study to use a qualitative approach to explore the experience of bankers when analysing CRMs for a trade finance transaction and uncover the drivers behind the rejection of letters of credit confirmation. The study presents unique and valuable findings that can only be obtained through qualitative interviews, with some information being sensitive and unlikely to be disclosed in surveys or written documents by bankers. While previous studies have examined the drivers for rejecting trade finance transactions, they have not delved into the use of CRMs in trade finance.

This study provides a comprehensive framework for understanding the constraints trade finance bankers face in utilising CRMs, contributing significantly to the expanding literature on trade finance—an increasingly studied domain. Our study develops a new understanding of the reasons behind the rejection of trade finance transactions, identifying constraints grouped into three categories: regulatory, organisational and individual. Our findings imply that implementing improved policies and banking procedures for credit risk mitigation could potentially reduce the number of trade financing rejections. Furthermore, this study is relevant for practitioners and policymakers aiming to enhance their understanding of the particularities of CRMs to prevent trade finance transaction rejections.

The remainder of this paper is organised as follows. Section 2 introduces CRMs in trade finance and their respective

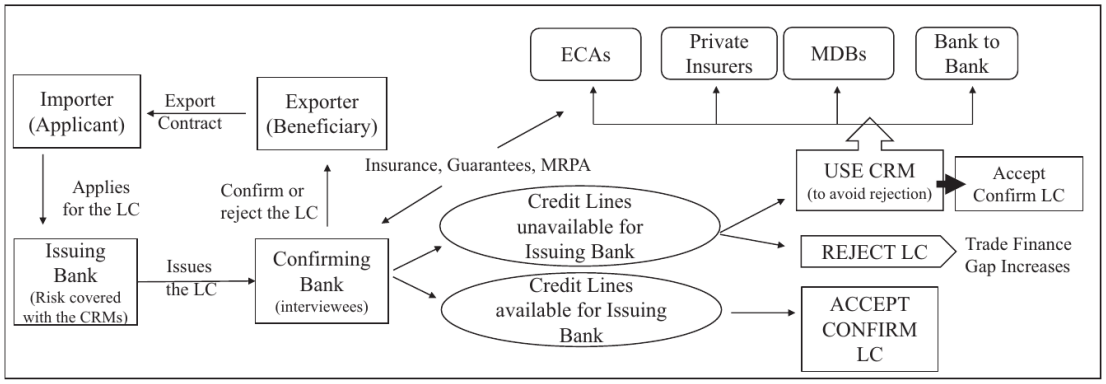

FIGURE 1 | Flow and options of credit risk mitigants for a confirmation of a letter of credit (LC). *Source:* Developed for this study by the authors.

providers. Section 3 provides a brief review of the related literature. Section 4 describes the research method. Section 5 presents and discusses the results. Section 6 concludes and highlights the policy implications.

2 | Credit Risk Mitigants in Trade Finance

One of the most significant risks in trade finance is credit risk, which arises from the possibility that a party involved in a trade transaction may default on its payment obligations. This risk can result from various factors, including the financial instability of the buyer (commercial risk), as well as broader economic, political and regulatory conditions (political risk). Various trade finance instruments are available to companies to facilitate international trade while mitigating risks associated with cross-border transactions. An LC is a commonly used financial instrument that provides payment assurance. Issued by a bank (the issuing bank), it guarantees payment to the exporter (beneficiary) once the agreed-upon conditions are met, reducing the risk of default and promoting trust between trading parties (Dornel et al. 2021). If the LC is confirmed, the exporter faces no risk from the issuing bank, as the confirming bank assumes that risk.

Therefore, when banks confirm LCs, they assume the risk of non-payment by the issuing bank, necessitating credit lines from the importer's bank and country (Crozet et al. 2022). Interbank credit limits are a limited resource in trade finance, particularly when the obligor is based in a developing country. The availability of these credit lines may be constrained due to prior transactions or concerns over the issuing bank's creditworthiness or country risk. This can lead to transaction rejections, exacerbating the trade finance gap. Nevertheless, banks can mitigate this risk using CRMs. Key providers of credit mitigation in trade finance are ECAs, private insurers, MDBs, and other banks in the secondary market. Importantly, banks must allocate capital and credit to the issuing bank for confirming LCs, but CRMs help by reducing regulatory capital requirements and providing credit relief. Figure 1 illustrates participants in an LC, showing options for credit risk mitigation when credit lines for the issuing bank are unavailable and visualising the decision paths for accepting or rejecting an LC.

ECAs are institutions established to support and promote the exports of their home countries. These agencies can be private companies or semi-governmental bodies, with their structure and function varying by country (Klasen 2014). One of the products ECAs offer is insurance for the confirmation of LCs, which typically covers between 95% and 100% of the risk, depending on the ECA and the specific transaction. A key condition for accessing this insurance is that the exporter must be based in the country of the ECA, meaning that each transaction can only involve the ECA corresponding to the exporter's nationality and the goods or services being traded. LC confirmation insurance safeguards confirming banks by covering the risk of non-payment by the issuing bank.

Credit insurance from private insurers is another tool that banks can use to mitigate and diversify their credit risk, which protects against losses from the non-payment of trade debts. To meet Basel requirements, policies must cover non-payment by the obligor for any reason. One common requirement is minimum risk retention, which mandates that the insured retain a specified percentage of the exposure without insurance or hedging. Therefore, this product does not allow banks to cover 100% of the risk, usually covering up to 90% of any given loss. Currently, around 60 insurers actively operate in the global credit insurance market. These insurers hold investment-grade credit ratings, ranging from A- to AA, as assessed by agencies such as Fitch, Moody's and S&P. (IACMP and ITFA 2023).

MDBs offer trade finance programs that provide partial or full guarantees to international banks (confirming banks) to cover the commercial and political payment risks associated with banks in emerging markets (issuing banks) for trade-related transactions (Henderson and Smallridge 2019). These transactions can involve instruments such as LCs, promissory notes, bills of exchange, bid, performance and advance payment bonds. Major MDBs with such programs include the International Finance Corporation, which operates globally in emerging markets; the Inter-American Development Bank for Latin America and the Caribbean; the African Development Bank for Africa; and the Asian Development Bank for Asia. These trade finance programs help facilitate access to international trade financing in developing economies, thereby reducing risks for financial intermediaries. Banks utilize these guarantees to mitigate risks

when confirming trade finance instruments issued by banks in emerging markets, where the perceived risks of default or political instability are higher. In the event of a default by the issuing bank, the confirming bank can claim payment from the respective MDB.

Lastly, banks mitigate credit risk in trade finance through the bank-to-bank market, utilising funded or unfunded risk participation with other financial institutions. A widely adopted framework for these transactions is the Master Risk Participation Agreement (MRPA), standardised by the Bankers Association for Finance and Trade (BAFT). Originally introduced in 2008, this MRPA—governed by English and New York law—has become the industry standard for facilitating the transfer of trade finance-related assets between banks. The agreement streamlines documentation, reduces legal costs, and enhances efficiency by minimising the need for extensive bilateral negotiations. Recognising evolving market needs, the agreement templates were updated in 2018 and 2019, respectively, with further revisions in 2022 to address regulatory changes, including the transition away from LIBOR (BAFT 2022). These agreements play an important role in risk distribution, allowing banks to manage country and counterparty risks while promoting liquidity in global trade finance markets.

Data on the volumes of different CRMs in trade finance is limited, and no single source offers a comprehensive overview of all instruments. The challenges include confidentiality requirements from banks and private insurance companies, differing methodologies across sources, inconsistent reporting practices, and the tendency to aggregate data for credit insurance with other types of insurance. This makes it difficult to obtain a clear understanding of the volume and use of each mitigation instrument. The Berne Union, a global association of export credit and investment insurers, publishes some data on total commitments, insured trade volumes, and claims from its members (ECAs and private insurers). These members collectively provide trade credit insurance for 13% of global trade. In 2023, a total of USD 2,78 trillion of credit insurance was extended, with 45% originating from public insurers (ECAs) and 55% from private insurers (Berne Union 2024). However, there is no available breakdown specifying whether the clients were corporations or banks, nor is there a detailed categorisation of the types of instruments, such as LCs. According to ICISA, the International Credit Insurance & Surety Association, private sector insurers accounted for 72% of short-term trade credit insurance coverage in 2023 (ICISA 2025). The volume of financing provided by MDBs can be derived from their annual reports; however, distinguishing between guarantees and direct financing remains challenging. In 2022, the short-term financing volume from MDBs was estimated at $7,3 billion (Multilateral Development Banks and Development Finance Institutions 2024).

3 | Related Literature

According to the World Trade Organisation, approximately 60%–80% of global trade involves trade finance instruments (Beck et al. 2023). Trade finance data are limited and are mainly obtained through market surveys from the International Monetary Fund and the Bankers Association for Finance and Trade, the International Chamber of Commerce, the Bank for International Settlements, the World Bank and the Asian Development Bank (Dornel et al. 2021; Sturgess 2019;). However, research on trade finance is limited due to challenges in accessing comprehensive data from financial institutions (Antràs and Foley 2015; Auboin 2009; Jesswein 2008). Most studies in this area rely on data from single banks, firms or countries (Ahn and Sarmiento 2019; Antràs and Foley 2015; Chor and Manova 2012; Demir et al. 2017).

Academic research in trade finance has gained attention since the 2008 financial crisis. Our study is related to three strands of trade finance literature. First, it is associated with literature on the role of banks in global trade. Trade finance is mainly provided by banks (Amiti and Weinstein 2011) and is an important business area for most commercial banks worldwide (Kowit et al. 2016), with a significant concentration in large global banks (Bank of International Settlements 2014). Among the financing products, trade finance is one of the safest instruments, with a low default rate, as indicated by ICC data (International Chamber of Commerce 2020). Banks facilitate global trade by assuming corporate risk through import letters of credit and bank guarantees, financial institution risk through letters of credit confirmations and receivable financing (Dornel et al. 2021). LC is the most common instrument when dealing with high-risk counterparties and countries. Niepmann and Schmidt-Eisenlohr (2017) found that the supply of letters of credit significantly affects global trade, and even the behavior of a single bank can affect aggregate trade flow. Moreover, the trade finance study group created by the Bank of International Settlements estimated that around 15% of global merchandise trade was financed by letters of credit in 2011 and 2012. This percentage varies at the country level, with letters of credit being the most used instrument in trade involving emerging market economies (Bank of International Settlements 2014).

Second, this study is related to the literature focusing on the trade finance gap and its drivers. The trade finance gap reflects a structural market failure (Auboin and DiCaprio 2017), and a growing number of studies have investigated the reasons for the trade finance gap. Kim et al. (2021) explained banks' barriers to approving trade finance transactions. Using data from the 2016 Asian Development Bank Trade Finance Survey, Auboin and DiCaprio (2017) and DiCaprio and Yao (2017) studied the drivers that lead banks to reject trade finance transactions. Based on the survey results of ADB, the main historical drivers of rejecting letters of credit are legal requirements for anti-money laundering (AML) and know-your-customer, Basel capital regulatory requirements, issuing banks' low credit ratings, and high transaction costs or low fee income. According to Basel regulations, banks must allocate capital when confirming letters of credit. Since 2007, banking regulations have become stricter with capital requirements and AML, resulting in the closing of client relationships and the rejection of transactions, thereby increasing the trade finance gap (Henderson and Smallridge 2019). Banks reject more letters of credit from emerging countries (DiCaprio and Yao 2017) as political risk has country-level effects on firms (Jiménez and Bjorvatn 2018) and impacts bank lending on capital (Janbaz et al. 2022). Exporters and importers heavily demand letters of credit in times of market uncertainty; however,

if banks are in financial distress, the issuance and confirmation of letters of credit become difficult (Ahn and Sarmiento 2019; Crozet et al. 2022). In this case, the simple outcome could be to reject the transaction, increasing the trade finance gap; however, risk mitigants are available for banks to avoid rejecting the transactions.

Third, our work relates to the literature on trade finance credit risk mitigation, which mainly focuses on the roles of ECAs, private insurance, and MDBs. These mitigation instruments ensure the default risk of the issuing bank and allow confirming banks to reduce their capital requirements. According to Demir et al. (2017), the volume of letters of credit decreases when the associated risk weights for counterparty exposure increase. Literature analyses the effectiveness of CRMs in trade as a means of stimulating exports. ECAs' products complement the private market, particularly in cases with longer operation timelines or higher-risk countries (Klasen et al. 2022; Liao 2021). Several studies show how ECAs stimulate international trade, aiding trade in emerging markets. For instance, using data on Austrian exports, Egger and Url (2006) found that public export credit insurance stimulates exports. Heiland and Yalcin (2021) obtained similar results using data from German manufacturing companies and export credit guarantees provided by the German ECA. Additionally, Moser et al. (2008), who used data on German exports, found that political risk has a negative effect on exports and that the use of public export guarantees positively affects exports. Felbermayr and Yalcin (2013) further confirm that public export guarantees increase sectoral exports. Klasen (2014) discovered and tested five firm-related factors that influence demand for export credit insurance from an exporter's point of view. Furthermore, Peterson and Downie (2023) argue that ECAs require more academic attention and suggest directions for further research. Some authors have examined trade finance insurance from private companies. For instance, Van der Veer (2015) analyses the effect of private credit insurance on trade using data from a leading insurer, and Auboin and Engemann (2014) demonstrate the positive impact of credit insurance on trade using Berne Union data.

4 | Materials and Methods

An exploratory qualitative research design was chosen as the most appropriate approach to address the research questions. This methodology is well-suited for investigating complex phenomena where limited prior research exists and the problem has not been clearly defined (Saunders et al. 2007). Given the limited availability of empirical studies on the factors influencing banks' decisions to apply or avoid CRMs in trade finance, an exploratory qualitative approach enables a deeper investigation into the underlying reasons and motivations behind these decisions. The flexible nature of this approach facilitates the collection, analysis and interpretation of qualitative data, allowing researchers to uncover trends in thought, identify barriers and gain comprehensive insights into poorly understood issues (Mbaka and Isiramen 2021).

We employed purposive sampling to select information-rich cases that could provide valuable insights to address our research questions (Patton 2002). In this study, these cases were senior trade finance bankers with decision-making authority over the use of CRMs. Given that the trade finance gap is a global issue, we aimed 'to obtain the broadest range of information and perspectives on the subject of study' (Kuzel 1999, 37) from a diverse, international sample. To identify banks actively engaged in trade finance, we initially contacted the largest global trade finance providers (S&P Global Market Intelligence 2021) and then expanded our selection to include banks active in different regions, identifying them among the members of the International Trade and Forfaiting Association (ITFA), the global trade finance industry association. This process resulted in a final sample of 38 banks, comprising both major global trade finance providers and significant regional banks. The sample distribution was as follows: 38% from Europe, 24% from the Americas, 19% from Asia, and 19% from the Middle East and Africa. Consequently, the sample demonstrates strong representativeness in volume, capturing a significant share of global trade finance activity. Table 1 provides descriptive participant information. To maintain anonymity, each participant was assigned a pseudonym (B, followed by a number).

Data was collected through semi-structured, in-depth interviews. We developed an interview protocol (Online Appendix S1) aligned with our research questions, consisting of ten guiding questions designed to encourage open-ended discussion and allow interviewees to express their perspectives freely. Most interviews were conducted face-to-face in London, where many banks have trade finance operations, while some were held in Porto during an annual ITFA conference. All interviews were conducted in English and lasted between 50 and 90 min. This format facilitated real-time clarification and follow-up questions (Saunders et al. 2007). Data saturation was reached after the 34th interview, as no new themes emerged (Strauss and Corbin 1998). To confirm saturation, we conducted four additional interviews.

Thematic analysis (Braun and Clarke 2022) identified, analysed, and reported patterns among participants. Initial codes were generated from transcribed data, clustered to unveil themes and sub-themes, providing unique insights. To ensure credibility and truth value, we included quotations for each theme in the presentation of the results (Guba and Lincoln 1989). Quotes were selectively chosen to maintain authenticity. Given the sensitive nature of some topics discussed in the interviews, measures were implemented to mitigate participant bias and ensure reliability (Saunders et al. 2007). Participants were selected through direct outreach rather than a general call, minimising self-selection bias. Confidentiality was assured, with participants informed that their names and institutions would remain anonymous, fostering openness in discussions. Rapport and trust were developed with participants to encourage honest responses, supported by the interviewer's background as a former trade finance banker. Although some biases may have persisted, these measures ensured the robustness and credibility of the findings, providing valuable insights into the barriers to CRM adoption.

5 | Results and Discussion

This section presents the results and discussion of the study. It is organised into three main subsections corresponding to the

TABLE 1 | Descriptive information of participants.

Banker pseudonym		Geographical category	Gender	Overall trade finance experience (years)	Experience in participant bank (years)
B	1	Asian Global	Female	> 20	5–10
B	2	Asian Global	Male	> 20	5–10
B	3	European Global	Female	15–20	10–15
B	4	European Global	Female	> 20	> 20
B	5	American Regional	Male	> 20	15–20
B	6	African Regional	Male	> 20	1–5
B	7	Asian Regional	Male	10–15	10–15
B	8	Asian Global	Female	> 20	1–5
B	9	Latam Regional	Female	> 20	1–5
B	10	Insurance broker	Female	> 20	1–5
B	11	African Regional	Male	> 20	1–5
B	12	European Regional	Male	> 20	1–5
B	13	African Regional	Male	15–20	1–5
B	14	Asian Regional	Male	> 20	10–15
B	15	European Regional	Female	10–15	10–15
B	16	European Global	Female	> 20	5–10
B	17	African Regional	Male	> 20	1–5
B	18	European Global	Male	> 20	5–10
B	19	American Global	Male	5–10	1–5
B	20	Middle East Regional	Male	> 20	1–5
B	21	Middle East Regional	Male	> 20	1–5
B	22	American Global	Male	5–10	1–10
B	23	European Regional	Male	> 20	1–5
B	24	American Regional	Female	> 20	10–15
B	25	European Regional	Female	> 20	1–5
B	26	European Global	Male	10–15	5–10
B	27	European Global	Male	5–10	1–5
B	28	European Regional	Male	> 20	1–5
B	29	European Regional	Female	> 20	1–5
B	30	European Regional	Female	> 20	1–5
B	31	European Regional	Female	> 20	15–20
B	32	Latam Regional	Female	> 20	5–10
B	33	Latam Regional	Male	> 20	> 20
B	34	Latam Regional	Male	15–20	5–10
B	35	American Regional	Female	> 20	10–15
B	36	Asian Regional	Female	> 20	15–20
B	37	Asian Regional	Male	> 20	15–20
B	38	Middle East Regional	Female	> 20	1–5

Source: Developed for this study by the authors.

themes discovered in the analysis, each containing several subsubsections focusing on specific subthemes.

Most informants reported receiving a high volume of trade finance proposals from issuing banks in developing Asia and Africa. However, they face significant challenges in confirming letters of credit, particularly in countries such as Bangladesh, Pakistan, Nigeria and Egypt, which were commonly mentioned as problematic. This aligns with the findings of the Asian Development Bank (Di Caprio et al. 2016), which identifies Asia and Africa as regions where the trade finance gap is most pronounced.

When asked about CRMs, few participants acknowledged awareness and utilisation from all four providers. Surprisingly, only one banker cited using products from all four providers: 'We have approval from around 35 insurance companies, participate in six MDB facilitation programs, utilise short-term ECA programs in countries with commercial banking, and sell risk in the secondary bank market. We evaluate all options and opt for the most profitable one' (B26). In contrast, two Middle Eastern, two Latin American, and two European regional banks lack the infrastructure and knowledge to implement these mitigants, leading to rejections of letters of credit when credit limits are unavailable.

We found that 48% of bankers are active users of CRMs from the bank-to-bank market, while 23% use them occasionally. For private credit insurance, 42% of the participants are active users, and 10% rely on it sporadically. Although 34% know MDBs' trade facilitation programs, only 26% use them. In contrast, engagement with ECAs is minimal, with only 15% utilising their short-term products, as these institutions are more commonly associated with long-term operations. Mitigant usage varies based on different drivers, with no clear patterns by bank size, location, gender, or interviewee experience. Initially focused on regulatory drivers, the study found that other factors significantly impact decision-making. These factors are grouped into three themes: regulatory, organisational, and individual. Figure 2 presents a thematic map summarising the findings, detailing constraints with sub-themes and codes, which will be discussed further in the following sections.

5.1 | Regulatory Constraints

5.1.1 | Know Your Customer Requirements

Letters of credit are exchanged via Swift, an encrypted messaging system requiring banks to exchange and approve Swift keys, now tied to strict Know Your Customer (KYC) protocols. KYC involves verifying identities, understanding banking activities, validating fund sources and assessing money laundering risks. It also requires robust risk management during onboarding, continuous monitoring, and enforcement of customer policies. Non-compliance can lead to significant penalties. After the 2008 financial crisis, stricter KYC requirements became an obstacle to confirming letters of credit from new banks. This aligns with Auboin and DiCaprio's (2017) finding that 90% of respondents faced trade finance challenges due to KYC requirements and costs.

Over the past two decades, banks have faced the imperative to reduce correspondent accounts due to the increasing workload and costs associated with maintaining updated KYC protocols, which impact the profitability of their business. A global banker interviewed highlighted a significant reduction in bank limits, stating, 'Our average annual cost for compliance to maintain an existing bank line is about $75,000. Since 2009, we've reduced the number of bank lines from 8,000 to 2,000' (B24). With KYC prices on the rise, bank lines undergo annual reviews and if not utilised for profitable transactions, they face closure. Another interviewee expressed, 'KYC is a prolonged and costly process. Names approved are reviewed annually, and if no transactions occur, the name is closed' (B1). The rising costs of KYC have been previously noted by Niepmann and Schmidt-Eisenlohr (2017). Additionally, Henderson and Smallridge (2019) elaborate on how regulatory requirements and compliance costs lead banks to de-risk, involving the termination of client relationships and a reduction in trade financing availability. Since the global financial crisis, correspondent banking relationships have decreased by 20%, particularly affecting smaller banks and developing countries (Auboin 2021).

Most trade finance bankers are only mandated to confirm letters of credit for banks with the KYC in place and reject transactions if an exporter seeks confirmation from a bank lacking KYC approval. 'KYC is a big problem in this bank. Without approved KYC, the chances of accepting that bank as a client are minimal, and we decline the transaction' (B16). DiCaprio and Yao (2017) quantified an 8% increase in the rejection rate of trade finance transactions due to the closing of bank correspondent relationships.

Certain CRMs can cover the entire LC amount. However, even if the confirming bank assumes no credit risk, the counterparty line and KYC must be established. According to a statement, 'KYC is very expensive and time-consuming. Without the KYC of an issuing bank in place, we can't confirm the LC, even with a 100% mitigant, leading to transaction rejection' (B31). Our qualitative approach extends the survey findings on the link between due diligence requirements and transaction rejections. It highlights that despite a confirming bank employing a mitigant to cover the entire LC amount, a thorough KYC for the issuing bank is still necessary. Consequently, the mitigant does not provide benefits in this scenario.

5.1.2 | Accounting Requirements

All participants agreed that confirming letters of credit with risk mitigation offers benefits, including avoiding or reducing counterparty and country risk on the issuing bank, along with capital and credit relief. As Klasen (2014) noted, the demand for export credit insurance is significant in high-risk transactions. However, banks vary in their treatment of mitigants, with some not using specific ones due to internal risk policies mandating full risk allocation to the issuing bank, even with a mitigant provider. A participant noted, 'Selling unfunded is an issue. Our credit insists on putting the full amount on the issuing bank as the primary repayment source, so we don't use it; it doesn't solve any credit line issue' (B23). Another participant added, 'Private Insurance is just a mitigant. It's not a true sale. I still need a full credit line for the transaction amount' (B31).

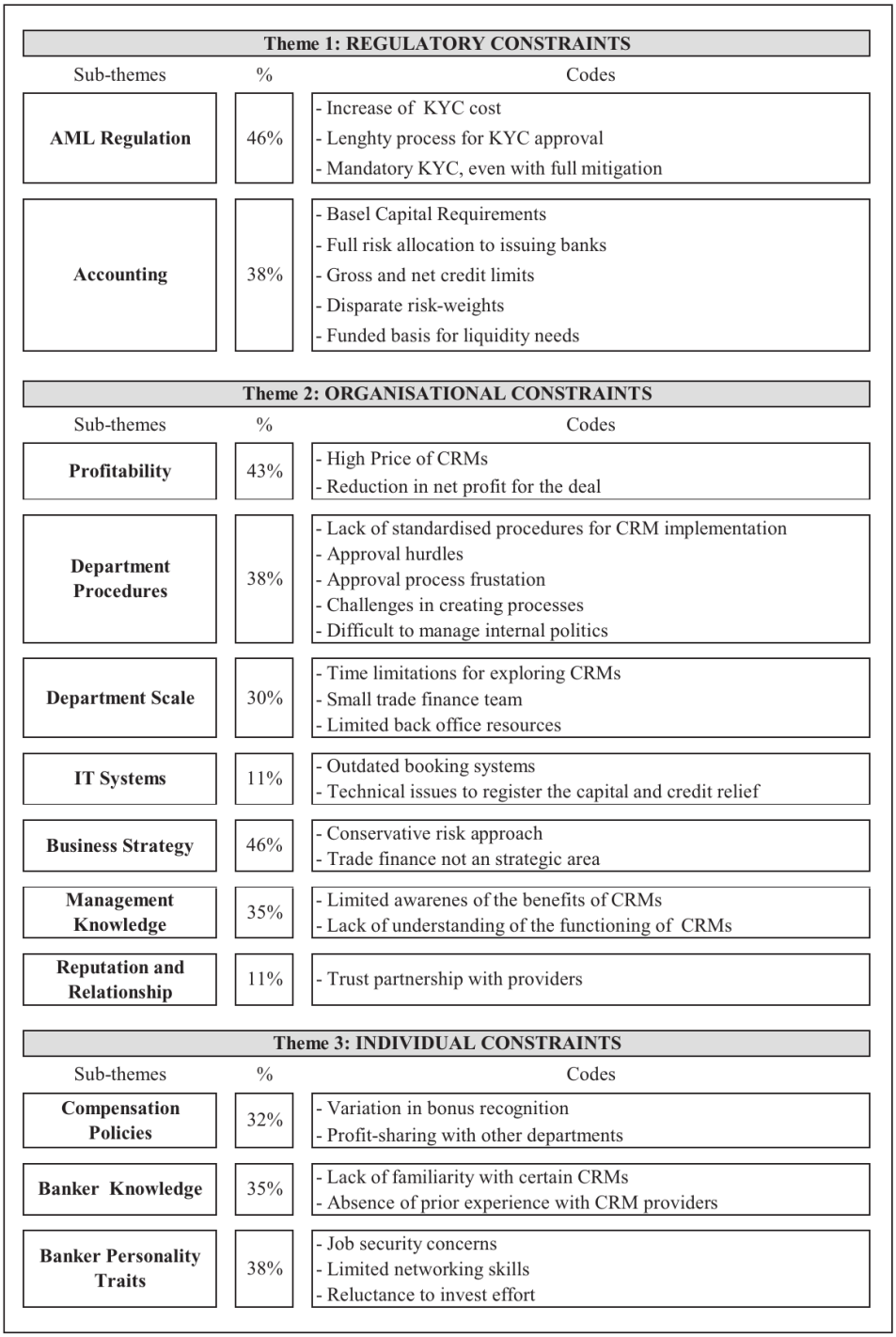

FIGURE 2 | Summary of findings. % indicates the percentage of participants who provided quotes related to each sub-theme. *Source:* Developed for this study by the authors based on data from the interviews.

Some banks emphasised maintaining a gross limit for the entire LC amount and a net limit for the portion without mitigation. Consequently, confirming an LC still requires gross limits. 'For insurance and unfunded sales, the bank needs a gross limit for the full amount and a net limit for the non-insured/guaranteed part. For funded sales, it is beneficial, reducing both gross and net limits' (B24).

Basel capital requirements are crucial for all interviewed trade finance bankers, with variations in the capital relief offered by CRMs. Notably, a participant remarked, 'For Letters of credit confirmation, we don't get risk-weight asset relief with insurance. With an MRPA, yes, but with insurance, no. This is our bank's approved risk model' (B18). Another bank (B6) cited diverse credit and capital approaches for entities within each mitigant category, stating, 'Not all insurance companies provide credit and capital relief. It's how our group operates. For instance, I get credit mitigation with Lloyds insurance market, but they aren't eligible for risk-weight asset relief.'

In the bank-to-bank market, selling on a funded basis is considered the only true sale by most banks. This option is preferred, especially when liquidity needs arise, as emphasised: 'Our distribution options are limited due to our balance sheet management policy. Risk Weight Assets are critical, with strict quarterly limits. Most discounted Letters of credit are funded for asset removal' (B22).

The effects of higher capital requirements and limited bank liquidity drive the rejection of trade finance requests (Asmundson et al. 2011; Auboin and DiCaprio 2017; DiCaprio and Yao 2017). Following Turkey's adoption of Basel II, there was a decline in letters of credit for higher-risk counterparties (Demir et al. 2017). Basel Capital regulatory requirements significantly contributed to the trade finance gap (Kim et al. 2021). Despite the potential benefits of CRMs in reducing risk-weighted assets and credit exposure, the lack of harmonisation in how each bank treats these mitigants, influenced by internal risk models, can lead to transaction rejections.

5.2 | Organisational Constraints

5.2.1 | Profitability

Participants commonly cite a lack of profitability as a recurring obstacle in credit risk mitigation selection. Some bankers reveal that their banks find the LC business less profitable, leading to transaction declination due to low pricing. The cost of CRMs influences final profits. One participant stated, 'I don't use insurance; I can't afford to share my profit' (B2), while another mentioned, 'Capital and credit relief are good, but paying insurance companies 75% of our margin is unfavourable' (B7). On the contrary, a participant noted, 'Insurance takes 65% of the price, but selling in the secondary market demands a market price, making it costlier than insurance' (B3). Overall, several banks perceive CRMs as expensive, limiting their use due to a reduction in the transaction's net profit.

Lack of profitability is one reason for rejecting trade finance requests (Auboin 2015, 2021; DiCaprio and Yao 2017; Kim et al. 2021). While CRMs can potentially reduce risk-weighted assets and enhance profitability, their perceived cost hinders their widespread adoption. Many banks view CRMs as expensive, leading to limited utilisation and subsequent rejection of transactions.

5.2.2 | Department Procedures

As per banker interviews, trade finance departments manage CRMs, oversee trade finance product structures, and assist in origination. However, not all banks have standardised procedures for specific mitigants or the power to use them. Some regional banks express frustration with the approval process, hindering effective mitigation utilisation. For instance, one banker stated, 'We could seek board approval to mitigate the LC with insurance, but bosses discouraged it' (B14). Another mentioned, 'Credit risk mitigation for trade finance lacks board approval, requiring case-by-case approval from various committees. Though it needs updating, being a new activity, we must work on it. Sometimes, we decline transactions to avoid certain committee presentations' (B15).

Certain regional banks are actively developing distribution processes, but gaining approval for new products and procedures is challenging. An interviewee shared, 'They trust my knowledge, but understanding internal politics is crucial. It took a year to engage relevant departments and implement distribution. Managing internal politics is the main hurdle' (B16). While some global banks lack approved distribution processes in all subsidiaries, effective internal communication could help them find solutions. As one stated, 'Our technical infrastructure supports sales in seven countries, representing 80% of the total volume. In other countries, we utilise MDBs. Credit limits are global, allowing us to book in one country and sell from another, but we don't do it' (B22).

5.2.3 | Department Scale

A predominant impediment reported was the limited resources available for exploring different credit risk mitigation options owing to the number of people within the trade finance distribution teams and related departments. Bankers have highlighted the importance of having experienced personnel in the back office for letters of credit execution, as extensive documentation is required. While some banks have large trade finance back-office departments, others do not. For example, one interviewee explained, 'If I have a request from a bank and I don't have enough lines, I would put the asset in the secondary market and insurance market. The only way to do business is by implementing distribution, but then I must look at the whole bank. We are a small bank. If I increased the business, my back office would collapse' (B13).

In banks where the distribution department oversees origination and structuring, a recurring comment is the lack of time to properly search for CRMs and reach out to potential banks, insurance companies, and MDBs. One interviewee stated, 'As a two-person team, we don't have time to distribute the risk. We use insurance through a broker for simplicity, and if the broker doesn't provide a quote, we decline the LC confirmation' (B3). While Krummaker (2019) noted that a company's size influences its insurance strategy and demand, we noticed that the scale of the trade finance department impacts the demand for credit risk mitigation.

5.2.4 | Information Technologies (IT) Systems

Four banks reported issues with their IT booking systems, preventing the utilisation of approved CRMs due to registration

challenges. One of them told us, 'Our systems are manual and old; registering credit relief with certain entities becomes problematic, and we have the reject transactions' (B27). The other two reported problems with unfunded participation in the bank-to-bank market. As noted, 'Despite the fact we can use unfunded mitigation, we have a technical issue. Our systems can't reflect unfunded mitigation, which is an ongoing issue. We are exploring external platforms for resolution' (B23). The other cited a challenge related to Basel standardised approach entities, explaining, 'Depending on the group entity, we get capital relief for unfunded risk mitigation under the advanced approach but not under the standardised approach due to an IT issue in our booking systems' (B18). Functional IT systems are crucial for operations; addressing these issues can enhance the capacity for efficient LC confirmations.

5.2.5 | Business Strategy

Not all banks have the same business strategy for trade finance business. In some banks, it is an important business; in others, it is only a support product, and the use of CRMs is limited. We could see banks' declining transactions and not using credit mitigants because trade finance was not a strategic area for banks. As one interviewee explained, 'We could do more business if we used CRMs, but trade finance is not a strategic department for the bank, and they prefer to grow in other areas. We focus on SMEs and can now use mitigants for the corporate risk but not for financial institutions yet' (B15). Some bankers also mentioned that they were not using CRMs because the bank was very conservative and only wanted to confirm letters of credit from the countries they liked. The following quotes illustrate this strategy, 'Historically, we haven't done any distribution. My predecessor was frustrated trying to set up the distribution desk. We do exactly what we like; we don't take any risk we don't like, even with mitigant' (B23), and 'I have commercial pressure, but my mandate is to manage the risk. We are a conservative bank, and I don't have the mandate to find solutions to approve the transactions if we don't like the risk' (B15).

5.2.6 | Management Knowledge

Another research finding is the management's role in understanding the product. Some interviewees, with prior distribution experience, aimed to implement CRMs in their current banks. However, they encountered frustration when presenting their plans because management was unfamiliar with trade finance and its associated CRMs. As one banker noted, 'There is not a distribution department. The management is not familiar with the mitigation instruments. And they don't want to use them. We only use our local ECA sometimes; if we can't do it with the ECA, we decline' (B28). Another frustration reported is the challenge of gaining management trust despite explaining the benefits of CRMs. As one posited, 'We were working on a transaction with International Finance Corporation (IFC), but we couldn't do it for a sovereign issue. I presented several solutions, but I was not heard, and we declined the LC. I know another bank closed it after, but because there was an employee there, ex-IFC, and she could internally persuade the management' (B31). Lack of knowledge was already highlighted by Kim et al. (2021), where 31.4% of the 79 banks surveyed said that bank staff's lack of familiarity with products was a barrier to approving trade finance requests. We extended this existing barrier with a specific lack of knowledge regarding the functioning of CRMs.

5.2.7 | Reputation and Relationship

If a bank has no credit available for an issuing bank, the total amount of the LC could be sold in the bank-to-bank market. However, most bankers actively working with this mitigant preferred not to use it when they needed 100% cover, highlighting reputation and relationship drivers. One participant noted, 'For reputational risk, we must keep 10% of any transaction we sell. We don't like the market to see us we are selling 100% of our risk. We don't want the market to think we are selling assets we are uncomfortable with. That is why we keep a 10%, to avoid reputational issues. We can only sell an asset the bank feels comfortable with, but we sell because we don't have more credit availability' (B22). Another bank told us that they do not even sell a piece, If we have a limit suspended because we think it is not a good risk, or we don't have it, then we don't even sell it. It's a relationship issue (B6).

5.3 | Individual Constraints

5.3.1 | Compensation Policies

Participants highlighted the significance of bonuses, often constituting 50%–75% of their base salary. While some banks employ formulas for bonus calculations based on annual objectives, not all products are equally weighted. Bankers reported varying recognition of CRMs, with some banks requiring the sharing of transaction income with another department or providing no recognition, depending on the mitigant used. This factor influences the selection of mitigants and the acceptance or rejection of transactions.

This is a recurring comment of frustration: 'It's always a political issue depending on who gets the recognition. This has to be solved. There is no point in using one instrument if you don't get the recognition!' (B7). Furthermore, one banker mentioned, 'My first option is the bank-to-bank market. We have a department in charge of the relationship with insurance companies, and if I don't have investors in the bank-to-bank market, I should contact them to look for an insurance quote. If I close the transaction with insurance, I need to give this department a significant percentage of the profit of the confirmation fee. Why do I have to share my profit with them if they use a broker that I could use as well if I were allowed to? In those cases, I prefer to decline the deal unless it is a huge one and focus on other more profitable deals for my department' (B31). The compensation package structure is vital for addressing agency problems and enhancing firm performance (Sakawa et al. 2012); we draw attention to compensation policies in trade finance and the utilisation of CRMs.

5.3.2 | Banker Knowledge

Trade finance distribution requires a knowledge that not all banks possess. Surprisingly, many participants, including large

global banks, were unaware that ECAs offer mitigants for confirming letters of credit. They mistakenly believed ECA products were only for medium- and long-term export transactions or projects. One participant admitted, 'I didn't know ECAs offer products for short trade finance. We are missing that. We are not doing anything with ECAs, maybe due to a lack of knowledge' (B22). While ADB surveys indicated banks rejecting trade finance transactions due to staff's lack of knowledge about processing a LC (Auboin and DiCaprio 2017), our findings highlight rejections stemming from insufficient knowledge about CRMs.

Bankers transitioning between banks or insurance companies bring their knowledge along. Previous positions significantly shape bankers' choices in using CRMs. A recurring issue is management's limited understanding of insurance, but when a banker with prior insurance market experience is involved, trust is established, and insurance use is allowed. Braun and Fischer (2018) showed that experience and expertise in insurance increase the demand for political risk insurance. As expressed by one banker, 'We can't do insurance. The use of insurance depends a lot on the specific people in charge of the business. If they have experience working with insurance in previous jobs, they are reliable within the bank and push internally to do it' (B14). Another participant noted, 'Insurance is a business people think they understand, but they don't. We began to do insurance when I joined the bank as I had been a broker before' (B27). Human capital's crucial role in banks' success is well-documented (Milosevic et al. 2021), with a banker's education and age significantly influencing a bank's performance (Kauko 2009). This extends to the trade finance area within a bank, affecting the utilisation of CRMs and shaping transaction approvals.

5.3.3 | Banker Personality Traits

Insurance firms cover letters of credit, and banks can contact them directly or use brokers for quotes. This allows trade finance newcomers to obtain insurance quotes without prior contacts. However, in the bank-to-bank market, lacking brokers, bankers must identify banks handling various risks with the right contacts for each deal. This difference in how providers are contacted affects the selection of mitigants. Bankers with contacts in the bank market and job security concerns prefer the bank-to-bank market. As one of them told us, 'I mostly use MRPAs on the secondary market as my contacts are good, and I don't want to use other CRMs, which could make me redundant in the future. My contacts are my best asset; anyone can use a broker' (B19).

Some interviewees admitted that the willingness to work, whether high or low, could influence credit risk mitigation selection. One interviewee confessed, 'Sometimes we don't explore mitigants just because we are busy or lazy, especially if there are other deals on the table that are easier to do' (B2). Some bankers dislike the bank-to-bank market and prefer working with a broker to obtain insurance because the broker handles the search and insurance policy negotiation. 'We have an excellent insurance program with a broker. That's our first option. I don't have time to explore other options' (B16). Some banks reported challenges when starting with a new mitigant provider, with approval processes ranging from six to eighteen months to become an approved confirming bank by some MDBs. One banker questioned the effort, saying, 'I avoid MDBs. When inquiring about the approval process, the IFC mentioned a six-month timeframe, and the African Development Bank indicated eighteen months. So, why bother?' (B13). Managers' objectives are not always fully aligned with profit maximisation (Francis et al. 2015), and they sometimes want to enjoy a quiet life (Bertrand and Mullainathan 2003). While trade finance managers prioritise bank and client profits, they also consider their effort levels.

Moreover, there was a recurrent comment about the low interest in seeking mitigants for small transactions, as it is the same work, but the profit is limited. 'I prefer to do big transactions, and I don't care about the small deals from SMEs. If we don't have a line, we just decline (B5)'. This is worrying, as the trade finance gap is mainly from SMEs and emerging markets.

6 | Conclusions

This study sheds light on critical challenges banks face in meeting trade finance demand, especially in high-risk emerging markets. Our findings reveal that despite the availability of mitigant products provided by ECA, private insurers, MDBs and the bank-to-bank market, banks do not always employ these tools effectively. This underutilisation leads to the rejection of letters of credit confirmations, impeding international trade and, therefore, exacerbating the trade finance gap, which poses a significant global risk. While existing literature primarily emphasises regulatory drivers (Auboin and DiCaprio 2017; Cavoli et al. 2022; DiCaprio and Yao 2017; Kim et al. 2021), our study reveals that the underuse of CRMs results from a combination of factors operating at different levels within banking institutions, which we have categorised into three groups: regulatory, organisational, and individual constraints.

First, our research reinforces the importance of regulatory constraints in trade finance, offering a more detailed explanation than prior studies. We confirm that KYC requirements hinder banks from increasing transaction volumes even when full mitigation could be applied. Another critical point identified is the inconsistency in regulations and criteria among banks regarding the accounting of CRMs, particularly concerning capital and credit relief, which creates hesitancy in their application. Second, we demonstrate that organisational constraints also significantly hinder the use of CRMs. Key barriers include limited departmental procedures, a lack of standardisation in CRM application, concerns over profitability due to the high costs associated with CRMs and outdated IT systems. In addition, business strategies that deprioritise trade finance, coupled with insufficient management support—often stemming from limited knowledge about CRMs—further weaken the decision-making process related to their utilisation. Third, although the banking sector is highly regulated, bankers' decisions are influenced by personal constraints that may not align with stakeholders' objectives. Our research identifies significant knowledge gaps regarding available CRMs, along with the influence of personal biases, personal risk aversion and compensation structures that discourage bankers from proactively using risk mitigation tools.

We also found that networking skills, motivation and job security concerns significantly influence bankers' decisions to utilise CRMs.

This paper contributes to the empirical trade finance literature, offering new insights into the utilisation of CRMs by financial institutions. It answers the academic call for research based on bank-specific information (Auboin 2015, 2021; DiCaprio and Yao 2017), addressing a longstanding limitation in the field due to the scarcity of accessible bank data. We bridge this data gap and enrich the existing literature by conducting 38 in-depth interviews with trade finance bankers worldwide.

Our findings suggest that more effective management of CRMs could enable banks to approve more transactions, thereby helping to reduce the trade finance gap. This research holds significant policy implications for various stakeholders involved in credit risk mitigation, including banks, regulators, ECAs, insurance companies and MDBs.

To address regulatory constraints, it would be necessary to harmonise global banking regulations to provide capital and credit relief benefits for all CRMs across jurisdictions. This would reduce regulatory inconsistencies and encourage banks to apply CRMs more consistently. Additionally, creating centralised KYC repositories would help lower compliance costs and simplify complex due diligence processes, facilitating quicker and more efficient transaction approvals.

In response to the organisational barriers identified in this study, banks should develop standardised procedures for assessing and applying CRMs. Investing in robust IT infrastructure would further enhance the efficiency of CRM registration, tracking, and monitoring, addressing technological limitations that currently hinder CRM utilisation. Another key measure to promote the effective use of CRMs is fostering stronger public-public partnerships between banks, ECAs, insurance companies, MDBs and regulatory bodies. Creating a comprehensive international dataset for trade finance and CRMs would enable banks that currently underutilise CRMs—or are unfamiliar with certain types—to understand their benefits better. This data-driven approach would equip banks with valuable tools to promote the internal adoption of CRMs.

Addressing individual constraints, particularly the lack of knowledge among bankers and management, is also crucial. This can be improved through coordinated training programmes led by policymakers and industry associations, aimed at enhancing CRM-related knowledge and skills. Additionally, banks should implement internal accounting systems to ensure that the financial benefits derived from CRM-backed transactions are accurately reflected in the performance metrics of the trade finance department. This approach helps maintain departmental incentives and encourages the proactive adoption of CRMs.

This study has limitations, indicating the need for further research. Firstly, the focus on letters of credit may not capture drivers relevant to other trade finance instruments like bonds. Secondly, evolving digitisation in trade finance may introduce new factors in selecting CRMs. Thirdly, data were collected only from financial institutions, overlooking the perspectives of mitigant providers such as ECAs, MDBs and private insurers. Future research should explore these perspectives to gain a comprehensive understanding of the credit risk mitigation market, which could contribute to reducing the trade finance gap and supporting global trade growth.

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Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Participants of this study did not give written consent for their data to be shared.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section.