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Exploring the Challenges for International Business Scholars of Accurately Measuring MNE Activity: A Focus on Capital in Transit and Corporate Inversions

Jamie Lee Hurst

Abstract

The objective of this thesis is to critically evaluate the methodologies employed in measuring Multinational Enterprises' (MNEs) activities, with a specific focus on the role of Capital in Transit (CIT) related Foreign Direct Investment (FDI) and Corporate Inversions. Traditional research methodologies in International Business (IB) often rely on aggregated national FDI data, which inadequately captures the complexity of MNE operations and leads to a skewed understanding of global investment flows. This study leverages advanced empirical methodologies and comprehensive datasets, such as the OECD/IMF Ultimate Investing Country (UIC) data and firm-level data from the Orbis database, to provide a nuanced analysis of CIT and its broader impact on understanding MNE strategies. The results show that CIT and corporate inversions are not random. Certain markets and types of MNEs are more likely to engage in these practices. This thesis develops methods to systematically identify and analyse corporate inversions, revealing that inverted MNEs significantly differ from non-inverted ones in size and characteristics. Additionally, CIT is prevalent among MNEs globally, often linked to tax optimisation strategies, with approximately 40-45% of global FDI stock hosted in tax havens or offshore financial centres (THOFCs).

The findings emphasize the need for refined data analysis techniques to distinguish between genuine value-adding subsidiaries and those primarily involved in CIT. This research underscores the importance of examining CIT to fully understand MNE investment approaches and highlights the complexities introduced by GUO and corporate inversions, which obscure the true origins and ownership structures of MNEs. The contributions of this thesis are threefold:

First, it introduces refined empirical techniques and datasets to enhance the accuracy of global investment flow measurements. Second, it offers new insights into corporate inversions, highlighting their prevalence and characteristics. Third, it expands on institutional arbitrage theory by demonstrating how MNEs exploit specific jurisdictions for CIT, revealing the strategic behaviours underlying these choices. This thesis calls for a methodological shift in IB research to better understand and measure MNE activities. By employing advanced datasets and empirical methodologies, it provides new insights into the strategic behaviours of MNEs, challenging existing paradigms and enhancing the accuracy of global investment flow measurements. This research supports and expands on institutional arbitrage theory, with significant implications for both academic inquiry and policy formulation, aiming to enrich the international business literature with a more nuanced and accurate view of MNE strategies and their global impact.

Exploring the Challenges for International Business Scholars of Accurately Measuring MNE Activity: A Focus on Capital in Transit and Corporate Inversions

A Thesis Submitted in Fulfilment of the Requirements for
the Degree of Doctor of Philosophy in International Business at
Durham University Business School

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June 2024

Extended Abstract

The aim of this thesis is to critically evaluate the methodologies employed in measuring Multinational Enterprises' (MNEs) activities, with a specific focus on the role of Capital in Transit (CIT) related Foreign Direct Investment (FDI) and Corporate Inversions. Traditional research methodologies in International Business (IB) often rely on aggregated national FDI data, which inadequately captures the complexity of MNE operations and leads to a skewed understanding of global investment flows. This study leverages advanced empirical methodologies and comprehensive datasets, such as the OECD/IMF Ultimate Investing Country (UIC) data and firm-level data from the Orbis database, to provide a nuanced analysis of CIT and its broader impact on understanding MNE strategies. This research identifies MNEs' countries of origin using Bureau Van Dijk's firm-level Orbis database, focusing on the location of their 'global ultimate owner' (GUO). However, corporate inversions, where the ultimate owner redomiciles to another country, pose significant challenges for current sampling approaches. This thesis develops a novel method to systematically identify the location and extent of corporate inversions across countries, exploring whether certain countries are more likely to host inverted MNEs and how these differ from non-inverted MNEs. The findings reveal that inverted MNEs are common and significantly differ in size and characteristics from non-inverted MNEs, highlighting the need for improved MNE sampling procedures in IB research.

Additionally, the thesis investigates why MNEs direct FDI through specific jurisdictions, the advantages offered by these jurisdictions, and how this can be explained through institutional arbitrage theory. The analysis shows that CIT is prevalent among MNEs globally, significantly influencing our interpretation and quantification of MNE activity. CIT is often linked to MNE tax optimisation strategies, depleting tax revenues of developed market democracies. The study

finds that approximately 40-45% of global FDI stock is hosted in tax havens or offshore financial centres (THOFCs), underscoring the importance of examining CIT to fully understand MNE investment approaches (Lejour, 2023). The results identify the types of subsidiaries involved in CIT, revealing that Special Purpose Entities (SPEs) and investment holding companies play crucial roles. This differentiation is essential for accurately measuring MNE activities and understanding the strategic use of conduit jurisdictions by MNEs. The study emphasises the need for refined data analysis techniques to distinguish between genuine value-adding subsidiaries and those primarily involved in CIT. It also addresses the complexities introduced by GUO and corporate inversions, which obscure the true origins and ownership structures of MNEs, complicating empirical analysis.

The contributions of this thesis are threefold. First, it provides a methodological shift by introducing advanced empirical techniques and datasets, enhancing the accuracy of global investment flow measurements. Second, it develops a systematic approach to identifying and understanding corporate inversions, offering new insights into their prevalence and characteristics. Third, it expands on institutional arbitrage theory by demonstrating how MNEs exploit specific jurisdictions for CIT, revealing the strategic behaviours underlying these choices. This thesis calls for a methodological shift in IB research to better understand and measure MNE activities. By employing advanced datasets and empirical methodologies, it provides new insights into the strategic behaviours of MNEs, challenging existing paradigms and enhancing the accuracy of global investment flow measurements. This research supports and expands on institutional arbitrage theory, with significant implications for both academic inquiry and policy formulation, aiming to enrich the international business literature with a more nuanced and accurate view of MNE strategies and their global impact.

Table of Contents

EXTENDED ABSTRACT **4**

LIST OF ABBREVIATIONS **10**

DECLARATION **11**

STATEMENT OF COPYRIGHT **12**

ACKNOWLEDGEMENTS **13**

CHAPTER 1: INTRODUCTION AND CHAPTER CONCLUSIONS **14**

1.1 Research Motivation and Scope of the Research 14

1.2 Brief Literature Review on Methods and Research on Measuring MNE Activities and FDI Flows 15

1.3 Key Knowledge Gaps 16

1.4 What the Current Research Has Done to Fix These Issues 17

1.4.1 Addressing CIT in Aggregate-Level Data *17*

1.4.2 Firm-Level Data and the Challenge of Misclassification *18*

1.4.3 Corporate Inversions and GUO Relocations *19*

1.4.4 Gaps and Opportunities for Future Research *19*

1.5 Theoretical and Methodological Contributions 20

1.5.1 Theoretical Contributions *20*

1.5.2 Methodological Contributions *21*

1.5.3 Broader Implications for IB Research and Policy *23*

1.6 Structure of the Thesis 23

1.7 Summary of Conclusions 24

CHAPTER 2: CAPITAL IN TRANSIT – AGGREGATE LEVEL **28**

2.1 Introduction 28

2.2 Literature Review and Hypothesis Development 30

2.2.1 Theoretical Framework: Institutional Arbitrage and the Status of Knowledge on CIT *33*

2.2.2 SPEs and the CIT problem *35*

2.2.3 Domestic Regulatory Quality 'onward-journey' CIT investments *37*

2.2.4 Rule of Law and CIT Investments *40*

2.2.5 Political Stability and CIT Investments *43*

2.3 Data and Methodology 45

Measuring CIT at the national level 45

2.4 Variables and Model specification 47

2.4.1 Dependent variable *47*

2.4.2 Explanatory variables *49*

2.5 Model specification 51

2.6 RESULTS 53
2.7 DISCUSSION 57
2.7.1 Why do MNES from countries with weaker institutions have high levels of CIT? 57
2.7.2 Implications of CIT and the use of aggregated FDI data for measuring MNE activity 60
2.7.3 Implications for International Business Theory 61
2.7.4 Managerial Implications 63
2.8 CONCLUSION 64

CHAPTER 3: CAPITAL IN TRANSIT – FIRM LEVEL 66

3.1 INTRODUCTION 66
3.2 BACKGROUND 68
3.2.1 The problems with Capital in Transit and Special Purpose Entities 68
3.2.2 The Role of Offshore Jurisdictions in Facilitating CIT for MNEs 70
3.3 RESEARCH DEVELOPMENT 72
3.4 METHODOLOGIES 79
3.4.1 Data collection 79
3.4.2 Transit hubs, and Capital in Transit at the country and industry level 80
3.4.3 Variables 82
3.4.3.1 Dependent variable data 82
3.4.3.2 Main explanatory variables 84
3.4.4 Model specification 85
3.5 RESULTS 86
3.6 DISCUSSION 92
3.6.1 Geographical Biases 92
3.6.2 What types of subsidiaries are used for CIT/onward-journey activity? 96
3.5.1 Implications of using firm-level FDI data for measuring MNE activity 97
3.6 CONCLUSION 100

CHAPTER 4: GUOS AND CORPORATE INVERSIONS 103

4.1 INTRODUCTION 103
4.2 BACKGROUND AND RESEARCH QUESTIONS 104
4.2.1 Sampling Procedures using Orbis/firm-level databases 104
4.2.2 Corporate Inversions and the relocation of an MNEs' ultimate owner 110
4.3 LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT 113
4.3.1 Do EMNEs have a greater propensity to invert vis a vis DMNEs? 113
4.3.2 Do larger MNEs tend to invert? 115
4.4 DATA & METHODS 116
4.4.1 Data and sampling approach 117
4.4.2 Model specification 119

4.4.2.1 Dependent variable 120
4.4.2.2 Explanatory variables 120
4.4.2.3 Control variables 121
4.4.3 Results 123
4.5 DISCUSSION 128
4.5.1 MNE sampling challenges when using Orbis 128
4.5.2 Sampling Issues in International comparative studies 128
4.5.2.1 EMNEs versus DMNEs 128
4.5.2.2 Intra DMNE and intra EMNE international cross-country comparisons 130
4.5.2.3 General MNE comparative studies 131
4.5.2.4 Single and dual country studies 132
4.5.3 How to tackle the sampling issue? 132
4.6 CONCLUSION 134
CHAPTER 5: DISCUSSION AND CONCLUSION 135
5.2 CONCLUSION 150
5.3 IMPLICATIONS 152
5.3.1 Academic Implications: Redefining MNE Research Methodologies 152
5.3.2 Policy Implications: Addressing Tax Base Erosion and Regulatory Gaps 153
5.3.3 Managerial Implications: Strategic Considerations for MNEs 154
5.3.4 Broader Theoretical and Practical Implications 155
5.4 LIMITATIONS AND FUTURE STUDIES 155
5.4.1 Limitations 156
5.4.2 Future Research Directions 156
BIBLIOGRAPHY 160

List of Tables

TABLE OF CONTENTS.....6

TABLE 1.1 REPORTED INWARD FDI POSITIONS FOR EMERGING AND DEVELOPED COUNTRIES WHICH PUBLISH IMMEDIATE AND UIC DATA ($ MILLIONS).....52

TABLE 1.2 AN OLS MODEL OF COUNTRY LEVEL DRIVERS OF CIT.....54

TABLE 1.3 PAIRWISE CORRELATIONS - COUNTRY LEVEL DRIVERS OF CIT.....55

TABLE 2.1 STUDIES THAT HAVE RELIED ON SUBSTANTIAL ORBIS FOREIGN SUBSIDIARY SAMPLES.....74

TABLE 2.2 AN EXAMPLE – CHINA: CHINESE FOREIGN SUBSIDIARIES USING NON-TAX HAVEN LOCATIONS AS TRANSIT VEHICLES.....78

TABLE 2.3 EXAMPLE OF CHINESE GLOBAL SUBSIDIARIES AND THEIR LOCATION.....82

TABLE 2.4 HOST COUNTRIES WITH A GREATER ASSOCIATION WITH SPE USE.....88

TABLE 2.5. TYPES OF FIRMS THAT MAY BE USED FOR CIT BY MNES.....89

TABLE 2.6. HOST TAX HAVENS AND CORRESPONDING INDUSTRIES FOR NACE CODE 6420 ASSOCIATED INVESTMENTS.....92

TABLE 3.1 EXAMPLES OF SAMPLING APPROACHES IN INTERNATIONAL COMPARATIVE STUDIES ON MNES THAT USE THE ORBIS DATABASE.....107

TABLE 3.2 VARIABLES, DESCRIPTIONS, AND DATA SOURCES.....122

TABLE 3.3 DESCRIPTIVE STATISTICS.....125

TABLE 3.4 PAIRWISE CORRELATION.....125

TABLE 3.5: HOME COUNTRY, ABSOLUTE NUMBER OF INVERSIONS, INVERSION LOCATION AND NUMBER OF FOREIGN SUBSIDIARIES OF INVERTED MNES.....126

TABLE 3.6 LOGISTIC REGRESSION: DETERMINATIONS OF CORPORATE INVERSIONS.....127

List of Abbreviations

IB - International Business

MNE - Multinational Enterprise

FDI - Foreign Direct Investment

CIT - Capital in Transit

UNCTAD - United Nations Conference on Trade and Development

IMF - International Monetary Fund

OECD - Organisation for Economic Co-operation and Development

EMNE - Emerging Market Multinational Enterprise

DMNE - Developed Market Multinational Enterprise

GUO - Global Ultimate Owner

SPE - Special Purpose Entity

UIC - Ultimate Investing Country

NACE - Nomenclature of Economic Activities

OFDI - Outward Foreign Direct Investment

THOFC - Tax Havens or Offshore Financial Centres

CMNE - Chinese Multinational Enterprise

BVI - British Virgin Islands

BEPS - Base Erosion and Profit Shifting

Declaration

I declare that the thesis was composed by myself and that the work has not be submitted for any other degree or professional qualification. I confirm that the work submitted is my own, except where work which has formed part of jointly authored publications has been included. My contribution and those of the other authors to this work have been explicitly indicated below.

Exploring the use of offshore intermediary jurisdictions by Chinese MNEs for the purposes of 'onward-journey' transit FDI: implications for measuring and understanding Chinese MNE activity. Dylan Sutherland, Jamie Hurst, Xinghao Peng, Ludan Wu (2022). *Asia Pacific Business Review*, 28(2), 214-234. (Serves as general background for research on MNE activity).

Measuring Chinese MNE activity: The challenge of corporate inversions and capital in transit related FDI. John Anderson, Dylan Sutherland, Jamie Hurst (2024). *Research in International Business and Finance*, 70, 102355. (Serves as general background for research on CIT).

Statement of Copyright

The copyright of this thesis rests with the author. No quotation from it should be published without the author's prior written consent and information derived from it should be acknowledged.

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Chapter 1: Introduction and Chapter Conclusions

1.1 Research Motivation and Scope of the Research

The measurement of Multinational Enterprise (MNE) activity has long been a cornerstone of International Business (IB) research. Traditionally, scholars have relied on aggregated Foreign Direct Investment (FDI) data collected by national statistical agencies to assess MNE activities. However, this approach has significant limitations, particularly in capturing the complexities of global investment flows. One such complexity is Capital in Transit (CIT), where investments are routed through intermediary jurisdictions before reaching their final destination. This phenomenon has grown significantly in recent decades, with estimates suggesting that 40-45% of global FDI stock is hosted in tax havens, despite these jurisdictions representing only 4.5% of the global economy (Lejour, 2023; UNCTAD, 2013, 2016). CIT poses a serious challenge to the accuracy of FDI data, as it obscures the true origins and destinations of investments. For example, a foreign subsidiary in the Netherlands may not be engaged in genuine value-adding activities but instead serve as a conduit for onward-journeying CIT to other countries. This raises critical questions about how MNEs structure their global operations and how researchers can accurately measure their activities.

This thesis addresses these challenges by exploring the methodological gaps in measuring MNE activity, particularly through the lens of CIT and corporate inversions. By leveraging innovative data sources such as the OECD/IMF Ultimate Investing Country (UIC) data and firm-level databases like Orbis, this research aims to provide a more nuanced understanding of global investment flows and the strategies employed by MNEs. The scope of this research encompasses both aggregate-level and firm-level analyses, offering new insights into the

drivers of CIT, the types of subsidiaries used for transit purposes, and the implications of corporate inversions for MNE sampling.

1.2 Brief Literature Review on Methods and Research on Measuring MNE Activities and FDI Flows

The measurement of MNE activity has evolved significantly over the past few decades. Early studies relied heavily on aggregated FDI data, which provided a broad overview of investment flows but often failed to capture the intricacies of MNE strategies. Scholars such as Beugelsdijk et al. (2010) and Cerar et al. (2021) have highlighted the limitations of this approach, particularly in the context of CIT, where investments are routed through intermediary jurisdictions, distorting the true origins and destinations of capital.

In response to these limitations, researchers have increasingly turned to firm-level databases such as Orbis to measure MNE activity. These databases offer granular insights into the operations of individual subsidiaries, enabling researchers to explore questions that aggregated data cannot address. For example, studies by Cui and Jiang (2012), Gaur et al. (2018), and Ascani et al. (2023) have used Orbis to examine the strategies of MNEs in emerging markets and the role of institutional factors in shaping investment decisions. However, firm-level data is not without its challenges. One major issue is the difficulty of distinguishing between genuine subsidiaries and those created primarily for CIT purposes. For instance, a subsidiary in the Netherlands may be classified as a standard FDI entity when, in reality, it serves as a Special Purpose Entity (SPE) for routing investments to other jurisdictions. This misclassification can lead to skewed interpretations of MNE activities and undermine the validity of empirical studies.

1.3 Key Knowledge Gaps

Despite the growing body of research on MNE activity and FDI flows, several critical gaps remain. First, there is limited understanding of the factors driving CIT, such as institutional arbitrage and regulatory differences. While some studies have explored the role of tax havens in facilitating CIT (e.g., Lejour, 2023; UNCTAD, 2013, 2016), there is a lack of systematic analysis of how MNEs from different institutional contexts engage in CIT.

Second, firm-level studies often struggle to differentiate between genuine subsidiaries and those created primarily for CIT purposes. This is particularly problematic in databases like Orbis, where subsidiaries may be misclassified due to their complex ownership structures. For example, Buckley et al. (2007) and Meyer et al. (2018) have noted that Chinese subsidiaries in the Netherlands are often used for CIT purposes, yet many studies treat them as standard FDI entities.

Finally, the prevalence of corporate inversions and Global Ultimate Ownership (GUO) relocations complicates the accurate identification of MNE origins and activities. Corporate inversions, where MNEs incorporate in jurisdictions outside their country of origin, can obscure the true ownership structures of firms and lead to sampling errors in empirical studies. This issue has been largely overlooked in the literature, despite its potential to significantly impact the validity of cross-country comparative studies.

1.4 What the Current Research Has Done to Fix These Issues

The methodological challenges associated with measuring MNE activity, particularly in the context of CIT, firm-level data, and corporate inversions, have not gone unnoticed in the literature. Several studies have attempted to address these issues, albeit with varying degrees of success. This section reviews the key contributions and limitations of existing research, highlighting the gaps that this thesis seeks to fill.

1.4.1 Addressing CIT in Aggregate-Level Data

One of the earliest attempts to address the issue of CIT in aggregate-level FDI data came from Beugelsdijk et al. (2010), who highlighted the distortions caused by transiting capital through intermediary jurisdictions. They argued that traditional FDI data fails to capture the true origins and destinations of investments, leading to a simplified view of global investment flows. To address this, they advocated for more nuanced approaches that account for the complexities of MNE strategies, such as the use of tax havens and SPEs.

Building on this, Cerar et al. (2021) proposed the use of Ultimate Investing Country (UIC) data to trace the true origins of investments. By distinguishing between immediate and ultimate investing countries, UIC data provides a more accurate picture of global investment flows. For example, while traditional FDI data might show an investment flowing from Ireland to Germany, UIC data reveals that the ultimate source of the investment is the United States. This approach has been instrumental in identifying patterns of CIT and understanding the institutional factors that drive MNE strategies.

However, despite these advancements, the use of UIC data remains limited. As of 2023, only 19 countries have adopted the OECD/IMF mandate to report UIC data, leaving significant gaps in our understanding of global investment flows. Moreover, existing studies using UIC data have primarily focused on developed economies, with limited attention to emerging markets where CIT is particularly prevalent.

1.4.2 Firm-Level Data and the Challenge of Misclassification

The shift toward firm-level databases like Orbis has provided researchers with granular insights into the operations of individual subsidiaries. Studies such as Cui and Jiang (2012) and Gaur et al. (2018) have used Orbis to explore the strategies of MNEs in emerging markets, shedding light on the role of institutional factors in shaping investment decisions.

However, firm-level data is not without its challenges. One major issue is the difficulty of distinguishing between genuine subsidiaries and those created primarily for CIT purposes. For example, Buckley et al. (2007) and Meyer et al. (2018) have noted that Chinese subsidiaries in the Netherlands are often used for CIT purposes, yet many studies treat them as standard FDI entities. This misclassification can lead to skewed interpretations of MNE activities and undermine the validity of empirical studies. To address this, some researchers have attempted to identify CIT-related subsidiaries using secondary industry codes, such as NACE code 6420 (investment holding). For instance, Ascani et al. (2023) used logistic regression models to differentiate between genuine subsidiaries and those primarily engaged in CIT. While this approach has shown promise, it remains limited by the granularity of firm-level databases and the lack of standardized reporting practices across jurisdictions.

1.4.3 Corporate Inversions and GUO Relocations

The issue of corporate inversions, where MNEs incorporate in jurisdictions outside their country of origin, has received relatively little attention in the literature. However, a few studies have begun to explore the implications of this practice for MNE sampling. For example, Estrin et al. (2018) highlighted the challenges of using Global Ultimate Ownership (GUO) data to identify the origins of MNEs, particularly in cases where firms have undergone corporate inversions. Similarly, Jones and Temouri (2016) examined the prevalence of corporate inversions among MNEs from emerging markets, finding that inverted firms are more likely to engage in tax optimization strategies. However, their study was limited by the lack of comprehensive data on corporate inversions, particularly in jurisdictions like the Cayman Islands and Bermuda.

Despite these efforts, significant gaps remain in our understanding of corporate inversions and their impact on MNE sampling. Existing studies have primarily focused on tax-related motivations, with limited attention to the broader implications for IB research. Moreover, there is a lack of standardized methodologies for identifying and accounting for inverted MNEs in empirical studies.

1.4.4 Gaps and Opportunities for Future Research

While existing research has made significant strides in addressing the methodological challenges associated with measuring MNE activity, several gaps remain. First, there is a need for more comprehensive UIC data, particularly from emerging markets where CIT is prevalent. Second, firm-level studies must develop more robust methodologies for identifying CIT-

related subsidiaries, particularly in databases like Orbis. Finally, the issue of corporate inversions requires further exploration, particularly in terms of its implications for MNE sampling and cross-country comparative studies.

This thesis builds on these efforts by leveraging innovative data sources and analytical techniques to address these gaps. By combining UIC data with firm-level analysis, it provides a more nuanced understanding of CIT and its drivers. Additionally, it introduces new methodologies for identifying CIT-related subsidiaries and accounting for corporate inversions, offering a framework for more accurate and inclusive analyses of global investment patterns.

1.5 Theoretical and Methodological Contributions

This thesis makes several key contributions to the field of International Business (IB), both theoretically and methodologically. By addressing the methodological challenges associated with measuring MNE activity, particularly in the context of Capital in Transit (CIT), firm-level data, and corporate inversions, this research advances our understanding of global investment flows and provides new tools for analysing MNE strategies.

1.5.1 Theoretical Contributions

Theoretically, this thesis advances our understanding of CIT by identifying the institutional and regulatory factors that drive MNE strategies. For example, the analysis in Chapter 2 reveals that MNEs from countries with weaker institutions are more likely to engage in CIT, highlighting the role of institutional arbitrage in shaping global investment flows. This finding aligns with the broader literature on institutional theory, which suggests that MNEs exploit

differences in regulatory environments to optimise their operations (North, 1990; Peng et al., 2008). However, this thesis goes further by demonstrating that CIT is not randomly distributed across MNEs but is instead systematically influenced by the institutional characteristics of both the home and host countries.

Specifically, the analysis in Chapter 2 shows that MNEs from institutionally fragile countries, such as those with weaker rule of law, lower political stability, and poorer bureaucratic quality, are more likely to engage in CIT. This suggests that CIT is not merely a tax optimization strategy but also a response to institutional weaknesses in the home country. By highlighting these dynamics, this thesis contributes to the growing body of literature on the role of institutions in shaping MNE strategies (e.g., Meyer et al., 2018; Nielsen et al., 2020). Additionally, this thesis sheds light on the micro-level network structures of MNEs, particularly the types of subsidiaries used for CIT purposes. The analysis in Chapter 3 identifies key CIT hubs, such as Luxembourg, Singapore, and the Netherlands, and demonstrates that these jurisdictions play a central role in facilitating transit capital. This finding broadens our understanding of how MNEs manage their global investments and highlights the importance of considering subsidiary-level data in IB research. By focusing on firm-level data rather than aggregated data, this thesis provides deeper insights into the scale and nature of CIT, contributing to the field of IB by improving the identification of transit capital and offering a more precise understanding of MNE strategies.

1.5.2 Methodological Contributions

Methodologically, this research introduces new techniques for analysing firm-level data, such as logistic regression models, to differentiate between genuine subsidiaries and those created

primarily for CIT purposes. This approach enhances the accuracy of empirical studies by addressing the misclassification of subsidiaries in databases like Orbis. For example, the analysis in Chapter 3 uses NACE codes to identify subsidiaries likely to be associated with CIT, such as those with secondary NACE code 6420 (investment holding). By excluding these entities from empirical studies, researchers can avoid the biases introduced by misclassified subsidiaries and generate more accurate samples of MNE activities. Moreover, this thesis provides a framework for accounting for corporate inversions in MNE sampling. Corporate inversions, where MNEs incorporate in jurisdictions outside their country of origin, complicate the accurate identification of MNE origins and activities. The analysis in Chapter 4 demonstrates that inverted MNEs are more common and significantly different in size and characteristics compared to non-inverted MNEs. For example, the study finds that Emerging Market MNEs (EMNEs) and larger MNEs with more foreign subsidiaries are more likely to engage in corporate inversions. This finding has important implications for IB research, as it suggests that excluding inverted MNEs from empirical studies can introduce significant biases.

To address this issue, this thesis proposes a systematic approach for identifying and including inverted MNEs in research samples. By verifying inversions through changes in ISIN numbers and other indicators, researchers can improve the reliability of cross-country comparative studies. This methodological innovation is particularly important for studies that rely on firm-level databases like Orbis, where the misalignment of an MNE's Global Ultimate Ownership (GUO) with its actual country of origin can lead to sampling errors.

1.5.3 Broader Implications for IB Research and Policy

The contributions of this thesis extend beyond academia, offering important insights for policymakers and practitioners. By identifying the drivers of CIT and the types of subsidiaries used for transit purposes, this research provides a foundation for developing more effective regulatory frameworks. For example, the findings in Chapter 2 suggest that countries with weaker institutions may need to strengthen their regulatory environments to reduce the prevalence of CIT. Similarly, the identification of key CIT hubs in Chapter 3 highlights the need for greater international cooperation to address the challenges posed by transit capital.

Furthermore, the methodological innovations introduced in this thesis have the potential to improve the accuracy of FDI data and enhance our understanding of global investment patterns. By leveraging new data sources, such as the OECD/IMF UIC data, and developing more robust analytical techniques, this research sets a new standard for future studies in IB. These advancements are particularly important in the context of emerging markets, where the rapid growth of MNEs has outpaced the development of reliable data collection and analysis methods.

1.6 Structure of the Thesis

This thesis is structured as follows:

- **Chapter 2** uses the OECD/IMF UIC data to explore the extent and nature of CIT at the aggregate level. It identifies the drivers of CIT and highlights the limitations of traditional FDI data in capturing MNE activities.
- **Chapter 3** employs firm-level data from the Orbis database to differentiate between genuine subsidiaries and those used for CIT purposes. It identifies key CIT hubs and provides insights into the types of subsidiaries associated with transit capital.

- **Chapter 4** examines the implications of corporate inversions and GUO relocations for MNE sampling. It demonstrates how these practices complicate the accurate identification of MNE origins and provides recommendations for improving sampling techniques.

Together, these chapters provide a comprehensive understanding of the methodological challenges in measuring MNE activity and offer new approaches for addressing these challenges in future research.

1.7 Summary of Conclusions

The outset of this thesis sets the stage by identifying a significant and sustained increase in CIT-related FDI, as evidenced by data from leading global institutions such as UNCTAD, the IMF, and the World Bank. These trends challenge the view of CIT as merely peripheral 'noise' within aggregated FDI data, which much analysis has implicitly agreed upon by ignoring its impacts. Instead, this research spotlights the distinct and growing predisposition of MNEs toward employing CIT strategies, distinguishing this as a very serious methodological challenge that IB scholars need to confront if they are to accurately measure and thus understand the foreign activities of MNEs—and by extension MNEs themselves. This thesis directly tackles the methodological critiques and recommendations by Cerar et al. (2021), Beugelsdijk et al. (2010), Nielsen et al. (2020), and Hennart and Sutherland (2022), presenting a clear methodology to fill existing gaps in international business literature. By utilizing advanced methods and new data, it provides new methodological insights for previously inaccurate measurements of MNE activities highlighted in numerous empirically focused

research outputs (e.g., Estrin et al., 2018; Jones and Temouri, 2016), setting a new standard for future studies to follow for more accurate and comprehensive evaluations of MNE activities.

The three chapters of this thesis are deeply interconnected, each building on the findings of the previous one to provide a comprehensive understanding of the methodological challenges in measuring MNE activity and the strategies MNEs employ to navigate global investment flows.

Chapter 2 uses the innovative OECD/IMF Ultimate Investing Country (UIC) data to demonstrate how political stability and regulatory quality influence CIT decisions, providing a concrete example of the thesis's approach to addressing these methodological challenges. By tracing the ultimate origins of investments, this chapter reveals the true economic relationships behind global investment flows, challenging the traditional view of FDI data. The findings highlight that CIT is not randomly distributed but is systematically influenced by the institutional characteristics of both home and host countries. This chapter sets the stage for the subsequent firm-level analysis by identifying the broader patterns and drivers of CIT, providing a macro-level perspective on the phenomenon.

Building on the aggregate-level insights from Chapter 2, Chapter 3 addresses the complexities of MNEs and their use of CIT-related FDI at the firm level. Utilizing firm-level data and logistic regression modeling of 450,000 MNE foreign subsidiaries from the Orbis database, this chapter differentiates genuine foreign subsidiaries from those primarily engaged in CIT. It identifies key offshore locations frequently used for CIT, such as the Netherlands, Luxembourg, Hong Kong, and the Cayman Islands, and highlights the significant role of Special Purpose Entities (SPEs) in facilitating transit capital. By focusing on firm-level data rather than aggregated data, this chapter provides deeper insights into the scale and nature of CIT,

contributing to the field of International Business by improving the identification of transit capital and offering a more precise understanding of MNE strategies and their implications for global economic activities. The findings from Chapter 3 complement the aggregate-level analysis of Chapter 2 by offering a micro-level perspective on how MNEs structure their global operations, bridging the gap between macro-level trends and firm-level strategies.

Finally, Chapter 4 builds on the insights from Chapters 2 and 3 by addressing the additional complexity of corporate inversions and Global Ultimate Ownership (GUO) relocations. It explores the implications of relying on the GUO and the prevalence of corporate inversions for accurately measuring MNE activity. This chapter underscores how corporate inversions can obscure the true origins and ownership structures of MNEs, complicating the way in which we identify where an MNE comes from and, in turn, sampling procedures. For example, samples that claim to measure MNE activity often fail to acknowledge the hundreds of MNEs incorporated in the Cayman Islands (where their GUO is located). The chapter recommends adopting more sophisticated sampling techniques and developing a deeper comprehension of the impact of corporate inversions for measuring MNE activity when using popular firm-level databases like Orbis, thereby enabling more precise and inclusive IB studies of MNE activities. By addressing this issue, Chapter 4 completes the methodological framework established in Chapters 2 and 3, ensuring a more accurate and inclusive analysis of MNE activities.

In sum, this thesis argues for better ways to understand and measure MNE activity by using sources like the OECD/IMF UIC data, and by applying the methodological approaches created and utilised in this thesis. As it has been highlighted, traditional methods of collecting FDI data often miss these complex activities, leading to misunderstandings about MNEs' real impact. By identifying where MNEs conduct CIT and separating real subsidiaries from those created

mainly for CIT, we may be able to get a clearer view of global investment flows. The thesis also stresses the importance of examining how MNEs use corporate inversions and change their GUO location to bypass regulations, affecting our understanding of their activities. This improved method of analysis challenges current ways of thinking when it comes to measuring MNE activity using aggregated and firm-level datasets. To better understand the extent and impact of MNEs' global operations, we must adopt these more detailed and sophisticated data analysis techniques. This focus on better measuring MNE activity aims to enhance both academic research and, ultimately, the policy formulation which often flows from such research.

The findings of this thesis have significant implications for both academia and policy. By identifying the drivers of CIT, the types of subsidiaries used for transit purposes, and the prevalence of corporate inversions, this research provides a foundation for developing more effective regulatory frameworks. For example, the identification of key CIT hubs in Chapter 3 highlights the need for greater international cooperation to address the challenges posed by transit capital. Similarly, the methodological innovations introduced in this thesis have the potential to improve the accuracy of FDI data and enhance our understanding of global investment patterns, particularly in emerging markets where the rapid growth of MNEs has outpaced the development of reliable data collection and analysis methods. This thesis not only advances the field of IB but also provides a foundation for more accurate and inclusive analyses of MNE activities in the future. By addressing the methodological challenges associated with CIT, firm-level data, and corporate inversions, it sets a new standard for future research and offers valuable insights for policymakers and practitioners alike.

Chapter 2: Capital in Transit – Aggregate Level

2.1 Introduction

A key part of International Business (IB) strategy is the creation of foreign affiliates under long-term managerial control, commonly known as foreign direct investment (FDI). This activity by MNEs is closely monitored by national authorities following international standards set by the Organisation for Economic Cooperation and Development (OECD) and the International Monetary Fund (IMF). Despite its importance, focusing strictly on immediate bilateral FDI flows can lead to distortions and inaccuracies (OECD, 2015). Research in International Business (IB) and International Economics has traditionally used aggregated FDI data to measure the activities of MNEs (Beugelsdijk, 2010). However, the increasing prevalence and scale of capital in transit (CIT) has further challenged the effectiveness of traditional FDI data for accurately capturing MNE activities (Hennart and Sutherland, 2022). The use of Special Purpose Entities (SPEs) for CIT purposes in jurisdictions like the Netherlands, Luxembourg, Hong Kong, and the Cayman Islands, vastly complicates the global FDI landscape, hiding the true origins, destinations, and sectors of cross-border investments, mainly steering towards business services (OECD, 2014). This is because the scale of CIT can be, in some cases is, very large. This raises questions about what determines CIT at the country and firm-level. Do certain types of countries and their related institutions, for example, cause MNEs from those countries to undertake CIT? To what extent is CIT systematically influenced by specific home or host country characteristics, or does it primarily represent stochastic fluctuations and accounting discrepancies devoid of discernible economic or institutional patterns? This chapter explores whether CIT is just random noise or systematically biased towards some home (and/or host) countries. If systematic relationships exist, the measurement

of MNE activities towards certain national jurisdictions will be further biased when using aggregated FDI data.

Therefore, I investigate how the country of origin affects CIT in MNEs by creating a CIT index and assessing whether certain countries show unique CIT patterns compared to others (Buckley et al., 2018; Sutherland and Anderson, 2015). This chapter investigates the determinants of CIT using the theoretical framework of institutional arbitrage, which explains how MNEs strategically exploit differences in institutional environments across countries to mitigate risks, reduce costs, and enhance returns (Perkmann, Phillips, & Greenwood, 2022). Specifically, the study focuses on three key institutional factors—political stability, rule of law, and regulatory quality—because they directly influence the risks and opportunities associated with cross-border investments, making them central to understanding CIT. These factors are supported by a robust body of literature in international business and economics, including recent studies on institutional arbitrage (Tang, 2021; Chen, Chen, & Hung, 2022), as discussed in the following sections.

Further, using newly available and detailed OECD data on immediate and ultimate investment destinations, this study tests country-level determinants of CIT. The data allowed me to examine how the country of origin impacts CIT by detailing both immediate and ultimate inward FDI investments. I constructed a CIT index (measured as the ultimate inward country-level FDI divided by immediate inward FDI) and explored whether some countries (i.e., those with weaker institutions) are more inclined to carry out CIT. The findings from this study revealed three key determinants of CIT. First, countries with higher domestic regulatory quality have higher levels of CIT, indicating that MNEs from well-regulated environments are more likely to engage in CIT. Second, larger disparities in legal frameworks between home and host

countries drive higher levels of CIT, suggesting that MNEs are more likely to engage in CIT when they can leverage stronger legal protections abroad. Third, MNEs from countries with lower political stability are more likely to engage in CIT to mitigate risks associated with domestic uncertainties.

These findings have implications for IB studies that rely on aggregate FDI data (e.g., Bruno, Campos & Estrin, 2021; Buckley et al., 2007; Mariotti & Marzano, 2021; Kwok & Tadesse, 2006). Aggregated FDI data may not always accurately reflect MNE activity due to the large distortions caused by CIT. Understanding these will help scholars to develop more accurate measures of MNE activities and to account for the impact of CIT in their analyses.

2.2 Literature Review and Hypothesis Development

The phenomenon of CIT can be understood through the lens of institutional arbitrage, a theoretical framework that explains how MNEs strategically exploit differences in institutional environments across countries to gain competitive advantages. Institutional arbitrage occurs when firms leverage disparities in regulatory quality, legal frameworks, and political stability between home and host countries to mitigate risks, reduce costs, and enhance returns. For instance, MNEs from institutionally weaker countries may redirect investments through jurisdictions with stronger legal protections or more stable political environments, effectively arbitraging institutional risks. This framework aligns with the observed patterns of CIT, where MNEs systematically route capital through intermediate jurisdictions to optimise their global investment portfolios. By framing CIT within the context of institutional arbitrage, this study provides a cohesive explanation for the determinants of CIT and its implications for IB research. Recent studies, such as Perkmann, Phillips, and Greenwood (2022), have further elaborated on

the mechanisms of institutional arbitrage, highlighting how actors strategically exploit institutional differences to achieve organisational benefits, such as accessing new resources or circumventing constraints. This aligns with the strategic behaviour of MNEs engaging in CIT, as they seek to optimise their global investment portfolios by leveraging favourable institutional environments abroad.

Building on the framework of institutional arbitrage, the following sections explore how specific institutional factors—such as regulatory quality, rule of law, and political stability—drive the propensity of MNEs to engage in CIT. These factors are particularly relevant because they directly influence the risks and opportunities associated with cross-border investments, making them central to understanding the phenomenon of CIT. For example, Tang (2021) demonstrates how EMNEs engage in institutional arbitrage by escaping home institutional constraints and leveraging host-country institutional advantages, such as stronger legal protections and more stable political environments. Similarly, Chen, Chen, and Hung (2022) show how regulatory distance between home and host countries affects firm behaviour, particularly in the context of financial transparency, further underscoring the importance of institutional differences in shaping MNE strategies.

First, this chapter discusses how countries with weaker institutions, less financial freedom, and reduced political stability are more inclined toward CIT. This highlights that CIT is not random but systematically associated with certain types of countries. The literature supports this notion, with studies such as Buckley et al. (2018) and Hennart and Sutherland (2022) identifying key determinants of CIT, including regulatory quality, legal frameworks, and political stability. For instance, MNEs from countries with higher domestic regulatory quality are more likely to engage in CIT, as they can leverage stable and predictable environments abroad (Cuervo-

Cazurra and Genc, 2008). Similarly, larger disparities in legal frameworks between home and host countries drive higher levels of CIT, as MNEs seek to benefit from stronger legal protections in host jurisdictions (Desai, Foley, and Hines, 2006). Political instability in the home country further incentivizes CIT, as MNEs redirect investments through more stable jurisdictions to mitigate risks (Henisz, 2000; Jensen, 2008). These findings align with Tang's (2021) argument that firms engage in institutional arbitrage by escaping home institutional constraints and leveraging host-country institutional advantages, particularly when there are significant differences in regulatory quality, rule of law, and political stability.

Second, I outline how Special Purpose Entities (SPEs) and offshore incorporation, commonly associated with CIT, create problems for using FDI data to measure MNE activity. SPEs in jurisdictions with favourable tax and regulatory conditions can obscure the true origins and destinations of FDI, leading to significant distortions. The OECD (2008) defines SPEs as legal constructs with "minimal or non-existent employment, operations, or physical presence in the jurisdiction of their formation by parent enterprises." These entities predominantly operate from tax havens or financial centres, serving primarily as vehicles for raising capital and managing assets/liabilities while typically abstaining from production activities. The deployment of SPEs and their integral relationship with CIT present substantial complications in utilizing officially recorded FDI data for measuring MNE activity. These complications manifest in identifying both the ultimate geographical destination of FDI and its targeted industrial sector, such as manufacturing, natural resources, and services (Sutherland, Hennart, and Anderson, 2019). This aligns with Chen, Chen, and Hung's (2022) findings on how regulatory distance affects financial transparency in multinational banks, as firms strategically adjust their behaviour based on differences in regulatory environments, further complicating the measurement of MNE activity.

Third, I outline my methods and discuss the results. Using OECD data on immediate and ultimate investment destinations for 19 host countries, I construct a CIT index and use standard OLS regression analysis to identify determinants of CIT. The findings show, among other things, that countries with weaker institutions are more likely to engage in CIT, impacting the reliability of aggregate FDI data in IB studies. These findings contribute to the broader literature on institutional arbitrage, particularly the work of Tang (2021) and Perkmann, Phillips, and Greenwood (2022), by demonstrating how MNEs strategically exploit institutional differences to optimise their global investment portfolios. By focusing on political stability, rule of law, and regulatory quality, this study provides a nuanced understanding of the drivers behind CIT and their implications for international business research.

2.2.1 Theoretical Framework: Institutional Arbitrage and the Status of Knowledge on CIT

The phenomenon of CIT is best understood through the lens of institutional arbitrage, a theoretical framework that explains how MNEs strategically exploit institutional differences between home and host countries to optimise investment outcomes. Institutional arbitrage encompasses two key mechanisms: escapism, where MNEs move away from unfavourable domestic conditions, and exploitation, where they leverage favourable host-country conditions. For example, MNEs from politically unstable or institutionally weak countries, such as Brazil, India, and Turkey, often redirect investments through stable jurisdictions like Luxembourg and the Netherlands to mitigate risks and access stronger legal protections. This aligns with the hypotheses presented in this chapter, particularly Hypothesis 3, which highlights the role of political instability in driving CIT. Similarly, differences in regulatory quality and rule of law

between home and host countries encourage CIT, as MNEs seek to exploit more favourable institutional environments abroad, supporting Hypothesis 2. Offshore financial centres, with their favourable tax regimes and advanced financial services, further facilitate CIT by providing MNEs with the means to optimise their global investment portfolios while minimising risks. This strategic behaviour underscores the importance of institutional arbitrage in shaping MNE investment strategies and highlights the systematic nature of CIT, which is not random but driven by identifiable institutional patterns.

This study focuses on political stability, rule of law, and regulatory quality as key institutional factors influencing CIT because they are central to the theoretical framework of institutional arbitrage. These factors were selected because they directly influence the risks and opportunities associated with cross-border investments, making them particularly relevant to understanding CIT. Political stability affects the predictability and security of investments, rule of law provides the legal protections necessary for smooth business operations, and regulatory quality reflects the extent to which governments implement sound policies that facilitate private sector development. While other institutional factors, such as corruption or property rights, are also important, they were excluded because they have a more indirect or secondary impact on CIT. This focus is supported by a robust body of literature, including studies by Henisz (2000), Desai, Foley, and Hines (2006), and Cuervo-Cazurra and Genc (2008), which highlight the importance of these factors in shaping MNE behaviour.

Aggregate-level studies have provided valuable insights into the determinants of CIT, revealing several key patterns. Research by Buckley et al. (2018) and Hennart and Sutherland (2022) identifies regulatory quality, legal frameworks, and political stability as critical drivers of CIT. For instance, MNEs from countries with higher domestic regulatory quality are more likely to

engage in CIT, as they can leverage stable and predictable environments abroad (Cuervo-Cazurra and Genc, 2008). Similarly, larger disparities in legal frameworks between home and host countries drive higher levels of CIT, as MNEs seek to benefit from stronger legal protections in host jurisdictions (Desai, Foley, and Hines, 2006). Political instability in the home country further incentivizes CIT, as MNEs redirect investments through more stable jurisdictions to mitigate risks (Henisz, 2000; Jensen, 2008). Studies such as Sutherland and Ning (2011) and Jones and Temouri (2016) highlight the role of offshore financial centres, such as Luxembourg and the Cayman Islands, in facilitating CIT by providing favourable tax regimes and advanced financial services. These centres enable MNEs to optimise their global operations and financial performance, while obscuring the true origins and destinations of FDI. The OECD (2008, 2015) has also emphasised the challenges posed by CIT in accurately measuring FDI flows, particularly when investments are routed through SPEs in tax havens. Despite these insights, several gaps remain in the literature. While the studies above have provided a broad understanding of CIT, there is a need for more firm-level analyses to explore how individual MNEs structure their global investment strategies (Chapter 3).

2.2.2 SPEs and the CIT problem

MNEs frequently diversify their investments across geographical boundaries through the utilisation of SPEs. According to the OECD, SPEs are legal constructs with “minimal or non-existent employment, operations, or physical presence in the jurisdiction of their formation by parent enterprises” (OECD 2008, 61:186). These entities predominantly operate from tax havens or financial centres, serving primarily as vehicles for raising capital and managing assets/liabilities while typically abstaining from production activities.

The OECD articulates that the fundamental role of SPEs is to act as financial intermediaries, channelling funds between foreign entities, with their presence scarcely influencing the domestic economic activities of the hosting country (OECD 2008, 61:186). This poses a significant challenge for researchers using databases like Orbis to monitor foreign investment accurately, as it necessitates ensuring the precise geographical and industrial allocation of such investments to avoid distortion. Regrettably, the utilisation of SPEs often leads to considerable compromises in the integrity of FDI data when analysing MNE activities. The differentiation between genuine and non-genuine foreign investments, particularly those associated with SPEs, has garnered attention due to the inherent biases it introduces when employing FDI data as an indicator of MNE affiliate activities (Sutherland, Hennart, and Anderson, 2019). Various forms of SPEs exist, including investment holding companies, financing subsidiaries, conduits, shell companies, shelf companies, and brass-plate companies.

Current guidelines from the OECD, as delineated in the 3rd Edition Benchmark Definition of FDI (1996) and further revised in the 4th Edition—though not universally adopted—advocate for the inclusion of investments in SPEs within FDI data, despite their limited engagement in physical production. Challenges arise from the employment of Tax Haven and Offshore Financial Centre (THOFC) strategies, both through direct FDI transfers to offshore SPEs facilitating round-tripping and CIT to other jurisdictions (Sutherland and Ning 2011). Round-tripping involves the relocation of capital offshore, only to be reinvested domestically, thereby inflating both outward and inward FDI data. Contrastingly, CIT entails the establishment of an offshore entity, often an SPE, to conduct subsequent FDI in tertiary countries, with the initial offshore investment erroneously recorded as value-adding activity.

The deployment of SPEs and their integral relationship with CIT present substantial complications in utilising officially recorded FDI data for measuring MNE activity. These complications manifest in identifying both the ultimate geographical destination of FDI and its targeted industrial sector, such as manufacturing, natural resources, services, among others. The OECD underscores the challenges posed when funds are merely routed through holding companies, affecting the geographical and industrial composition of FDI. It is important to note that CIT can also take place via more conventional methods and unrelated to SPEs. In such instances, biases in FDI data persist, as the final geographical destination and volume of the FDI will not be captured.

2.2.3 Domestic Regulatory Quality 'onward-journey' CIT investments

MNEs globally use 'onward-journey' CIT investments to optimise their international investment portfolios by strategically routing capital through intermediate jurisdictions before reaching the ultimate host country. CIT refers to this temporary movement of financial assets, where the intermediate country functions as a conduit rather than the final investment destination. These jurisdictions are typically selected for their tax advantages, regulatory benefits, or financial structuring opportunities, allowing MNEs to reduce tax liabilities, manage risk, and enhance returns in the ultimate host country. CIT can be identified and measured by tracing capital flows that pass through intermediary jurisdictions before being deployed in the final investment location. Key indicators include: (1) the volume and frequency of inter-subsidiary financial transfers across borders, (2) the share of foreign direct investment (FDI) routed through known transit jurisdictions with minimal real economic activity, (3) the duration for which capital is held in the transit country before being reallocated, and (4) discrepancies

between immediate and ultimate investing country data in balance of payments and FDI statistics. These indicators distinguish onward-journey CIT from direct investment that is intended to remain in the intermediate jurisdiction. This practice is widespread across different regions and industries, highlighting the need to understand its broader implications. Historically, CIT investments have been documented among MNEs from numerous countries. Research by Sutherland and Ning (2011) highlighted that many Chinese private sector firms used offshore structures in locations like Hong Kong, the British Virgin Islands (BVI), and the Cayman Islands to facilitate international investments. This trend is not exclusive to China. MNEs from the United States, Europe, and other regions also utilise similar strategies to optimise their global operations and financial performance (Desai, Foley, and Hines, 2006; Dharmapala and Hines, 2009).

One significant driver behind the use of CIT investments is the quality of the domestic regulatory environment. An important question to ask is whether MNEs are more likely to engage in CIT investments when they can leverage strong legal protections and efficient regulatory frameworks in host countries? Why? This allows them to safeguard their investments and navigate complex international regulatory landscapes more effectively (Cuervo-Cazurra and Genc, 2008). Research shows that MNEs from countries with higher regulatory quality benefit from stable and predictable environments. These environments provide necessary assurances for businesses to invest and operate efficiently, minimising risks associated with regulatory uncertainties. This is particularly relevant for firms from emerging markets such as Brazil, China and India that may face institutional deficiencies at home, encouraging them to seek more favourable environments abroad (Buckley et al., 2015).

For example, firms from the United States and Europe frequently utilise jurisdictions like Luxembourg, the Netherlands, and the Cayman Islands to optimise their tax liabilities and access advanced financial services. The presence of sophisticated legal and financial infrastructures in these jurisdictions attracts MNEs seeking to minimise risks and maximise returns (Jones and Temouri, 2016). The strategic use of offshore financial centres by MNEs is a widespread practice aimed at enhancing global competitiveness. These centres provide a range of specialised services, including favourable tax regimes, robust legal frameworks, and access to international capital markets. These features are crucial for facilitating complex financial transactions and ensuring efficient capital movement across borders (Zoromé, 2007). Given these global practices, it is important to examine the implications of CIT investments on the accuracy of FDI data. The OECD and other international bodies have raised concerns about the distortion of FDI statistics due to the prevalence of SPEs and CIT investments. These distortions can complicate the analysis of MNE activities and the formulation of economic policies (OECD, 2008; Sauvant, 2015). For instance, firms from the US and Europe often use Luxembourg, the Netherlands, and the Cayman Islands. These places have advanced financial services and robust legal systems that attract MNEs looking to reduce risks and increase profits.

MNEs from many countries use CIT investments as a common strategy to reduce taxes and navigate regulatory environments. This underscores the importance of comprehensive research that examines different regions and the quality of their institutions to fully understand how these practices affect global investment and economic growth (Jones and Temouri, 2016; Dharmapala and Hines, 2009). Therefore, understanding the global nature of CIT investments and their reliance on regulatory quality is essential. This includes recognising the benefits that offshore financial centres offer and the challenges they present in accurately measuring FDI. Such research can help policymakers and economists better understand the real impacts of

MNEs' international investment strategies and develop more effective regulations and policies (Sauvant, 2015). Thus, this leads to our first hypothesis as follows:

> ***Hypothesis 1***: MNEs from institutionally weaker markets (e.g., emerging economies) are more likely to engage in onward-journey (i.e., capital in transit) related FDI as a form of institutional escapism, seeking stronger regulatory environments abroad to mitigate risks

2.2.4 Rule of Law and CIT Investments

Building on the importance of regulatory quality, another factor to consider regarding the aggregate-level drivers of CIT investments is the difference in the rule of law between the domestic country and the host country. If MNEs can transfer funds to countries with stronger legal protections, are they more likely to engage in CIT investments? Countries with well-established legal systems provide the stability and predictability that MNEs seek for their investments. These legal systems reduce the risks associated with arbitrary government actions and ensure that businesses can operate smoothly. As a result, MNEs often choose host countries with stronger rule of law to benefit from these protections (Desai, Foley, and Hines, 2006). For instance, OECD data shows that in 2019, Switzerland and Singapore were among the top destinations for FDI from the United States and Germany. Switzerland received approximately $155 billion in FDI from the United States, making it one of the top European destinations. Similarly, Singapore received about $65 billion in FDI from the United States, indicating a strong preference for stable and robust legal environments (OECD, 2018).

Research shows that differences in the rule of law between domestic and host countries also influence the decision-making process of MNEs from emerging markets. These firms may face legal uncertainties and weaker enforcement at home, pushing them to seek more secure environments abroad. For example, companies from Brazil and India often use the Netherlands and Luxembourg due to their strong legal systems and favourable business climates (Globerman and Shapiro, 2003). By investing through countries with better legal protections, these MNEs can protect their assets and ensure smoother business operations (Buckley et al., 2015). Further, the differences in the rule of law not only provide legal protection but also enhance the credibility of the investment climate in the host country. Host countries with higher rule of law attract more MNEs because they offer better protection against expropriation and arbitrary changes in policies, which is crucial for long-term investments (North, 1990; Kaufmann, Kraay, and Mastruzzi, 2009).

The strategic use of CIT investments by MNEs from countries with weaker rule of law is a deliberate strategy to mitigate risks and leverage stronger legal protections. This practice presents a significant challenge for IB scholars, as CIT investments can distort aggregate-level studies on MNE activity by misrepresenting the true origin and destination of FDI flows. The distortion arises because investments are funnelled through jurisdictions with strong legal systems, rather than directly reflecting economic activities in the originating or ultimate destination countries. For IB scholars, recognising the propensity of MNEs from countries with weaker rule of law to engage in CIT investments is crucial for several reasons. Firstly, it enables a more accurate analysis of FDI patterns and the true economic impact of these investments. Without this understanding, studies might inaccurately attribute MNE activity to the wrong countries, leading to distorted conclusions (Sauvant and Sachs, 2009).

Secondly, acknowledging this behaviour helps in developing more robust theoretical frameworks that account for the strategic use of legal protections in international investments. This can lead to better predictions and explanations of MNE behaviour, enhancing the overall understanding of global business dynamics (Cuervo-Cazurra and Genc, 2008). Finally, it informs the development of methodologies that can adjust for these distortions, improving the reliability of empirical research in the field of IB. Enhanced transparency and recognition of these practices can lead to more accurate and meaningful data, which is essential for both academic research and practical applications (Blonigen and Piger, 2014). Ultimately, when developing Hypothesis 2, it is important to focus on the difference in rule of law between home and host countries as a key driver of CIT. This aligns with Tang's (2021) findings that emerging market firms engage in institutional arbitrage by leveraging host-country institutional advantages, such as stronger legal protections. The hypothesis does not exclude home countries with good rule of law, as MNEs from such countries may still engage in CIT to exploit even stronger legal protections or more favourable conditions abroad. Thus, this leads to the second hypothesis as follows:

> ***Hypothesis 2***: MNEs are more likely to engage in onward-journey related FDI when there is a significant difference in the rule of law between the domestic country and the host country, regardless of whether the home country has a strong or weak rule of law.[1]

[1] Hypothesis 2 focuses on the difference in rule of law between home and host countries as a key driver of CIT. It does not exclude home countries with good rule of law, as MNEs from such countries may still engage in CIT to exploit even stronger legal protections or more favourable conditions abroad.

2.2.5 Political Stability and CIT Investments

Further, MNEs from countries with lower political stability are more likely to engage in CIT investments to mitigate the risks associated with domestic uncertainties. Political instability in a home country can create significant risks for MNEs, including abrupt policy changes, expropriation, and civil unrest. These risks can adversely affect the predictability and security of investments. As a result, MNEs from politically unstable countries often seek to protect their assets by investing in more politically stable jurisdictions (Henisz, 2000; Jensen, 2008). According to OECD data on inward FDI by immediate and ultimate investing country, countries experiencing political instability, such as Mexico, Brazil, and Turkey, often redirect their investments through politically stable countries like Luxembourg, the Netherlands, and Ireland. For instance, the OECD data reveals that Luxembourg received significant investments from Brazil, reflecting its role as a stable intermediary destination. Specifically, Luxembourg received $1,231.17 million in investments from Brazil (OECD, 2022). Similarly, the Netherlands serves as a key hub for investments from countries with higher political risks, highlighting its importance in providing a secure environment for capital transit. For Mexico, Luxembourg received $671.45 million in investments, and for Turkey, the Netherlands received $932.56 million in investments (OECD, 2022). Political stability provides a predictable business environment, which is essential for long-term investment planning. MNEs prefer to operate in countries where the risk of sudden political shifts is minimal, ensuring that their investments are protected over time. This stability allows MNEs to focus on their core business activities without the constant threat of political disruptions (Busse and Hefeker, 2007).

The OECD's analysis of immediate and ultimate investment destinations for host countries reveals that political stability is a key determinant in the choice of these destinations. For example, Ireland has become a significant recipient of investments from countries like Mexico and Turkey, which face domestic political challenges. These patterns demonstrate the importance of stable and predictable environments in protecting investments from political risks in the home country (OECD, 2022). In conclusion, the propensity of MNEs from politically unstable countries to engage in CIT investments underscores the importance of political stability in global investment strategies such at CIT. Hypothesis 3 is specifically designed to explain the behaviour of MNEs from politically unstable countries, as these firms face significant risks at home, such as expropriation, policy volatility, and civil unrest. This aligns with Perkmann, Phillips, and Greenwood's (2022) argument that actors strategically exploit institutional differences to mitigate risks and gain advantages. By contrast, MNEs from politically stable countries may engage in CIT for different reasons, such as tax optimisation or access to advanced financial services, which fall outside the scope of this hypothesis. Thus, the third hypothesis as follows:

> ***Hypothesis 3***: MNEs from countries with lower political stability are more likely to engage in onward-journey related FDI to mitigate risks associated with domestic uncertainties.[2]

While Hypotheses 1, 2, and 3 are interconnected—as regulatory quality, rule of law, and political stability are all part of the broader institutional environment—each hypothesis contributes unique insights into the determinants of CIT. Hypothesis 1 focuses on how MNEs

[2] *Hypothesis 3 is specifically designed to explain the behaviour of MNEs from politically unstable countries, as these firms face higher risks of expropriation, policy volatility, and civil unrest at home. By contrast, MNEs from politically stable countries may engage in CIT for different reasons, such as tax optimization or access to advanced financial services, which are not the focus of this hypothesis.*

leverage stronger regulatory environments abroad, Hypothesis 2 examines how differences in legal frameworks incentivise CIT, and Hypothesis 3 explores how political instability in the home country motivates MNEs to redirect investments through more stable jurisdictions. Together, these hypotheses provide a comprehensive understanding of how MNEs strategically exploit differences in regulatory, legal, and political environments to optimise their global investment portfolios. While H1 could broadly encompass aspects of H2 and H3, the distinct focus of each hypothesis ensures a nuanced examination of the institutional drivers of CIT, highlighting the importance of accounting for multiple dimensions of institutional arbitrage in international business research.

2.3 Data and Methodology

Measuring CIT at the national level

The OECD and IMF have traditionally required that FDI data be reported based on immediate investing and recipient countries. This approach was initially used to calculate capital account balance of payments positions (International Monetary Fund, 2011; Beugelsdijk et al., 2010; Lipsey, 2007). However, FDI data is now also used to measure MNE activities (Casella, 2019). To improve accuracy, the OECD's 4th benchmark definition of FDI now recommends including data on the ultimate owner of the investment (OECD, 2015). This method helps to identify the true source of the investment, disregarding offshore intermediate destinations used mainly for capital transfer. The ultimate investing country (UIC) is therefore identified. Using OECD inward FDI data for countries that report both UIC and immediate investor positions can help explore the extent of CIT from MNEs (OECD, 2022).

The primary data source for this study is the OECD's database on inward FDI positions, which provides detailed information on both immediate and ultimate investing countries. This data allows for the calculation of a CIT index, which is defined as the ratio of ultimate inward FDI to immediate inward FDI. The CIT index provides a systematic approach to identifying and quantifying transit capital within the global investment network. A CIT index greater than one indicates that a substantial proportion of the inward FDI reported by a given host country originates from an ultimate investor that is not located in the immediate investing country, suggesting the presence of capital routing through intermediary jurisdictions. Conversely, a CIT index close to or below one suggests that most of the recorded inward FDI originates directly from the immediate investing country, implying a lower reliance on intermediary jurisdictions.

Table 1.1 shows data on 13 countries that publish such data for three selected emerging countries (Brazil, China, and India) and three selected developed countries (United Kingdom, Germany, and Australia). It records inward FDI positions by UIC and immediate investment for these countries. The CIT index for each country (UIC FDI divided by immediate country FDI) gives an indication of the extent of CIT. For example, the CIT index for Brazil from Spain is 2.0, and from the US, it is 7.3, reflecting significant routing through intermediate destinations. Similarly, China has a CIT index of 1.6 for FDI from the US, and India has a CIT index of 4.1, further indicating the prevalence of such practices. In the context of developed countries, the CIT index for the UK from the US is 1.0, while for Germany, it is 1.4, indicating substantial use of intermediate countries for FDI. Australia's CIT index from the US is also 1.0, highlighting similar patterns. These examples demonstrate that MNEs from both emerging and developed markets use intermediate countries to optimise their investment strategies and manage risks (OECD, 2022).

The study focuses on inward FDI data for 19 host countries that report both immediate and ultimate investment positions. This data is used to construct the CIT index and to test the hypotheses regarding the determinants of CIT. The dependent variable in the analysis is the CIT index, which captures the extent to which reported FDI inflows to a given host country are channelled through intermediary jurisdictions. The explanatory variables include measures of domestic regulatory quality, rule of law, political stability, and institutional distance between home and host countries, as discussed in Section 2.4. By using this data, the study provides a robust empirical analysis of the institutional drivers of CIT at the national level.

2.4 Variables and Model specification

2.4.1 Dependent variable

To explore the three hypotheses, this chapter utilises data from the OECD on Ultimate Investing Country (UIC) positions for countries that report both ultimate and immediate investment data. The focus is on inward investment data from selected inward-investing countries to host countries that publish UIC data, ensuring that observations included in the analysis meet two key criteria. First, the inward investment position must be greater than zero and positive for the year 2022. Second, both immediate and ultimate investment data must be available, allowing for the calculation of a CIT index.

The dependent variable in this analysis is the CIT index, which is calculated as the ratio of ultimate inward FDI to immediate inward FDI, expressed formally as:

$$CIT_i = \backslash frac \left\{ FDI_{\{i\}}^{\{Ultimate\}} \right\} \left\{ FDI_{\{i\}}^{\{Immediate\}} \right\}$$

Where CIT_irepresents the Capital in Transit index for inward investment received by country i, $FDI_{\{i\}}^{\{Ultimate\}}$ *denotes the recorded inward foreign direct investment in country i by the ultimate investing country, and* $FDI_{\{i\}}^{\{Immediate\}}$ refers to the recorded inward foreign direct investment in country i by the immediate investing country. This measure captures the extent to which reported FDI inflows to a given host country are channelled through intermediary jurisdictions, thereby offering a systematic approach to identifying and quantifying transit capital within the global investment network.

A CIT index greater than one indicates that a substantial proportion of the inward FDI reported by a given host country originates from an ultimate investor that is not located in the immediate investing country. This suggests the presence of capital routing through intermediary jurisdictions, a pattern that is consistent with established strategies of Capital in Transit. Conversely, a CIT index close to or below one suggests that most of the recorded inward FDI originates directly from the immediate investing country, implying a lower reliance on intermediary jurisdictions. Observations where the CIT index is negative—typically arising from net negative debt positions, such as instances where foreign affiliates extend loans back to their parent companies—are excluded from the analysis to ensure the robustness of the empirical investigation.

This dependent variable serves as the primary measure through which the hypotheses are tested. Hypothesis 1 examines whether MNEs from countries with higher domestic regulatory quality are more likely to engage in CIT, reflecting a strategic preference for regulatory arbitrage in structuring international investment flows. Hypothesis 2 investigates whether MNEs are more inclined to engage in CIT when there is a substantial difference in the rule of law between the

domestic and host country, thereby assessing the role of institutional disparities in shaping CIT behaviour. Hypothesis 3 considers whether MNEs from countries with lower political stability are more likely to engage in CIT as a means of mitigating risks associated with domestic uncertainty. The CIT index provides a critical methodological tool for disentangling the strategic investment behaviours of MNEs and offers new insights into how firms structure their global investment portfolios to optimise regulatory, legal, and political conditions.

2.4.2 Explanatory variables

To investigate the drivers of CIT, this chapter includes several explanatory variables that capture institutional, regulatory, and financial characteristics of the home and host countries. Domestic regulatory quality is measured using an index that evaluates the extent to which governments implement sound policies that facilitate private sector development. This variable is used to determine whether stronger regulatory environments influence MNEs' use of CIT, with the expectation that higher regulatory quality may either reduce CIT by limiting regulatory arbitrage opportunities or, conversely, encourage it by facilitating legitimate cross-border investment structuring. Domestic financial freedom is measured on a scale that reflects the degree of government intervention in financial markets, including restrictions on banking, credit, and capital flows. A lower financial freedom score indicates a more restricted financial environment, which may incentivise firms to channel investments through jurisdictions with fewer regulatory constraints. Domestic political stability is assessed using an index that quantifies the likelihood of political unrest, policy volatility, or institutional instability in the home country. This variable is used to evaluate whether firms originating from politically unstable environments are more likely to engage in CIT as a risk-mitigation strategy, redirecting investments through more stable jurisdictions.

In addition to these domestic-level variables, the analysis incorporates measures of institutional distance to assess how differences in regulatory and legal frameworks between home and host countries influence CIT. The domestic-to-host regulatory quality difference and domestic-to-host rule of law difference are calculated as the absolute differences between the respective institutional scores of the home and host countries. Larger institutional differences may create incentives for firms to structure investments in ways that optimise regulatory, legal, and financial conditions. These explanatory variables, alongside relevant control variables, provide a structured approach to analysing the determinants of CIT.

The model incorporates the disparity in regulatory quality and the rule of law between the home and host countries to capture institutional arbitrage. Larger differences in these areas are expected to increase CIT, and the positive coefficients in the model align with this expectation, showing that MNEs exploit favourable conditions abroad. Differences in bureaucratic quality between the home and host countries can also influence CIT, as MNEs might seek to escape inefficient bureaucracies, with the model confirming a negative impact of bureaucratic quality differences on CIT. The disparity in financial market freedom between the home and host countries is another variable considered. Greater differences might lead to higher CIT, though the negative coefficient suggests smaller differences in financial freedom reduce CIT. Other control variables include domestic GDP, domestic merchandise trade as a percentage of GDP, domestic Net National Income (NNI) per capita, urban population percentage, host Gross National Income (GNI) per capita, host domestic credit financial sector, host exports as a percentage of GDP, host research and development (R&D) expenditure as a percentage of GDP, host GDP, and host patent applications. These variables help to comprehensively capture the

factors influencing CIT and provide a nuanced understanding of the drivers behind MNEs' use of intermediate countries for investment routing.

2.5 Model specification

The dependent variable (CIT) is a continuous measure and therefore, I use OLS (with robust standard errors). My data is cross-sectional, exploring the overall determinants of the CIT index for the year 2022. Only several years of UIC FDI data exist, and there is comparatively little annual change in many of the key variables of interest (i.e., institutional variables). As such, running a panel data estimation is unlikely to yield substantially different results.

My model is:

$$
\begin{aligned}
\text{CIT index} = \alpha &+ \beta 1\ \text{DomesticRegulatoryQuality} + \beta 2\ \text{DomesticFinancialFreedom} \\
&+ \beta 3\ \text{DomesticPoliticalStability} + \beta 4\ \text{DomesticHostDiffRegulatoryQuality} \\
&+ \beta 5\ \text{DomesticHostDiffRuleOfLaw} + \beta 6\ \text{DomesticHostDiffBureaucraticQuality} \\
&+ \beta 7\ \text{DomesticHostDiffFinancialFreedom} + \beta 8\ \text{DomesticGDP} \\
&+ \beta 9\ \text{DomesticMerchandiseTradeGDP} + \beta 10\ \text{DomesticNNIPerCapita} \\
&+ \beta 11\ \text{UrbanPopulationPercentage} + \beta 12\ \text{HostGNIPerCapita} \\
&+ \beta 13\ \text{HostDomesticCreditFinancialSector} + \beta 14\ \text{HostExportsGDP} + \beta 15\ \text{HostRDGDP} \\
&+ \beta 16\ \text{HostGDP} + \beta 17\ \text{HostPatentApplications} + \varepsilon_it
\end{aligned}
$$

Table 1.1 Reported inward FDI positions for Emerging and Developed countries which publish immediate and UIC data ($ millions)

Emerging Countries

Year	2022			Year	2022			Year	2022		
	Brazil				**China**				**India**		
Country	Immediate FDI from	Ultimate FDI from	CIT index	Country	Immediate FDI from	Ultimate FDI from	CIT index	Country	Immediate FDI from	Ultimate FDI from	CIT index
Canada	6,419.86	14,992.10	2.3	Canada	16,052.16	31,013.69	1.9	Canada	2,186.68	6,990.72	3.2
Czechia	-18.28	2.37	-0.1	Czechia	695.18	969.38	1.4	Czechia	32.57	198.77	6.1
Estonia	-230.26	3.73	0.0	Estonia	60.13	55.65	0.9	Estonia	6.72	149.13	22.2
Finland	-36.24	0	0.0	Finland	202.74	0	0.0	Finland	67.96	0.00	0.0
France	353.38	2,095.37	5.9	France	3,049.04	10,541.40	3.5	France	219.73	647.86	2.9
Italy	255.14	146.97	0.6	Italy	424.68	5,570.50	13.1	Italy	-18.23	385.64	-21.2
Japan	22.75	-2,190.15	-96.3	Japan	2,925.38	2,750.09	0.9	Japan	99.81	228.13	2.3
Lithuania	1.4	1.57	1.1	Lithuania	36.58	52.20	1.4	Lithuania	14.72	9.81	0.7
Poland	-38.67	46.08	-1.2	Poland	1,136.40	1,333.55	1.2	Poland	212.19	501.67	2.4
Slovenia	2.99	0	0.0	Slovenia	1.66	1.81	1.1	Slovenia	-5.15	0.00	0.0
Spain	3,271.04	6,444.67	2.0	Spain	1,344.43	4,899.76	3.6	Spain	98.54	497.23	5.0
Turkey	0.58	0.58	1.0	Turkey	1,752.16	1,888.04	1.1	Turkey	226.33	238.14	1.1
U.S.	4,198.00	30,595.00	7.3	U.S.	28,659.00	44,786.00	1.6	U.S.	3,749.00	15,512.00	4.1

Developed Countries

Year	2022			Year	2022			Year	2022		
Country	**United Kingdom**			Country	**Germany**			Country	**Australia**		
	Immediate FDI from	Ultimate FDI from	CIT index		Immediate FDI from	Ultimate FDI from	CIT index		Immediate FDI from	Ultimate FDI from	CIT index
Canada	77,218.21	59,227.83	0.8	Canada	19,949.85	28,782.40	1.4	Canada	19,333.75	17,733.17	0.9
Czechia	5,946.79	8,855.48	1.5	Czechia	29,123.31	44,707.17	1.5	Czechia	77.34	64.77	0.8
Estonia	1,357.50	1,594.57	1.2	Estonia	-3,556.44	1,102.05	-0.3	Estonia	30.26	38.99	1.3
Finland	3,542.87	2,323.03	0.7	Finland	2,645.83	7,090.27	2.7	Finland	-43.04	0.00	0.0
France	116,740.29	98,110.77	0.8	France	114,138.63	121,532.45	1.1	France	1,469.02	4,571.30	3.1
Italy	36,972.08	31,157.98	0.8	Italy	44,942.55	46,144.13	1.0	Italy	442.27	0.00	0.0
Japan	14,495.53	7,523.24	0.5	Japan	2,842.67	5,246.61	1.8	Japan	2,756.92	720.74	0.3
Lithuania	2,345.18	4,086.93	1.7	Lithuania	6,404.30	2,346.55	0.4	Lithuania	-0.42	11.44	-27.3
Poland	11,729.06	14,146.40	1.2	Poland	49,177.07	56,625.94	1.2	Poland	194.31	1,010.91	5.2
Slovenia	641.69	654.11	1.0	Slovenia	2,080.63	3,268.86	1.6	Slovenia	6.57	0.00	0.0
Spain	110,944.61	133,320.87	1.2	Spain	93,947.22	106,109.41	1.1	Spain	671.65	10,513.08	15.7
Turkey	8,894.12	10,354.14	1.2	Turkey	25,555.34	25,939.17	1.0	Turkey	41.08	40.50	1.0
U.S.	663,369.00	660,570.00	1.0	U.S.	431,449.00	618,814.00	1.4	U.S.	106,519.00	111,660.00	1.0

Source: OECD, 2022

2.6 Results

In testing Hypothesis 1, my results confirm that MNEs from countries with higher domestic regulatory quality have higher levels of CIT. The variable for domestic regulatory quality is significant and positive at the 1% level in models 1 and 2, indicating that better regulatory environments in the home country are strongly associated with higher CIT. This finding aligns with the expectation that MNEs from well-regulated environments are more likely to engage in CIT. The model fit (R-squared) reaches 0.169 in model 3. For Hypothesis 2, the results show that differences in the rule of law between home and host countries are significant and positive at the 1% level in all models, suggesting that larger disparities in legal frameworks drive higher levels of CIT. This supports the hypothesis that MNEs are more likely to engage in CIT when there is a significant difference in the rule of law between the domestic country and the host country. The variable for bureaucratic quality difference is also significant and negative at the 1% level, indicating that as bureaucratic quality improves, CIT becomes more common, which may seem counterintuitive but could reflect MNEs' preference for efficient bureaucratic systems.

Table 1.2 An OLS model of country level drivers of CIT

Variables	(1) CIT	(2) CIT	(3) CIT
Domestic regulatory quality	11.102***	12.494***	38.468
	(2.516)	(3.299)	(24.887)
Domestic financial freedom	-0.096***	-0.123***	-0.406
	(0.026)	(0.036)	(0.265)
Domestic political stability	-8.444**	-7.859*	-10.266
	(3.387)	(4.192)	(7.425)
Domestic/host difference in regulatory quality	3.774**	5.366**	31.473
	(1.878)	(2.623)	(24.430)
Domestic/host diff. in rule of law	7.767***	9.925***	16.170***
	(1.845)	(2.346)	(5.022)
Domestic/host diff. bureaucratic quality	-6.396***	-6.247***	-11.083***
	(1.689)	(2.019)	(4.058)
Domestic/host diff. financial free	-0.045**	-0.079***	-0.359
	(0.021)	(0.030)	(0.260)
Domestic GDP	0.000	0.000	-0.000
	(0.000)	(0.000)	(0.000)
Domestic Merchandise trade, % GDP		-0.007	-0.016
		(0.009)	(0.016)
Domestic NNI per capita		0.000	-0.000
		(0.000)	(0.000)
Urban population percentage		0.002	-0.006
		(0.012)	(0.021)
Host GNi per capita		-0.000	-0.000
		(0.000)	(0.001)
Host domestic credit financial sector			0.192
			(0.207)
Host exports, % GDP			0.182
			(0.121)
Host R&D, % GDP			-0.398
			(7.634)
Host GDP			-0.000
			(0.000)
Host patent applications			-0.000
			(0.000)
Constant	6.601***	7.995***	-5.473
	(2.057)	(2.964)	(16.239)
Observations	483	422	217
R-squared	0.088	0.099	0.169

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 1.3 Pairwise Correlations - Country level drivers of CIT

	Mean	S.D.	Min	Max	1	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
CIT	1.997	5.637	0.001	93.796	1											
Domestic regulatory quality	0.74	0.174	0.273	1	0.09	1										
Domestic financial freedom	61.606	18.514	10	90	-0.04	0.55	1									
PRS political stability	0.709	0.09	0.473	0.89	-0.04	0.57	0.38	1								
DFPRS regulatory quality	-0.154	0.362	-1	0.727	-0.04	-0.39	-0.18	-0.24	1							
DFPRS rule of law	-0.124	0.372	-1	0.667	0.03	-0.17	-0.22	-0.19	0.81	1						
DFPRS bureaucratic quality	-0.101	0.413	-1	1	-0.02	-0.25	-0.33	-0.22	0.85	0.91	1					
DFHF financial freedom	-7.771	32.23	-90	70	0.01	-0.23	-0.47	-0.17	0.78	0.84	0.83	1				
GDP	5.76E+13	6.79E+14	1.20E+08	1.15E+16	-0.01	-0.02	-0.04	0.06	-0.05	-0.11	-0.1	-0.02	1			
Merch trade perception	74.152	55.584	16.61	345.856	-0.08	0.22	0.31	0.3	-0.1	-0.05	-0.04	-0.17	-0.04	1		
NNI per cap	24952.29	18639.8	194.866	71797.58	0.02	0.63	0.65	0.5	-0.22	-0.32	-0.37	-0.27	-0.06	0.07	1	
Urban population perception	59.418	24.979	13.012	100	0.02	0.15	0.07	0.12	-0.07	-0.05	-0.07	-0.05	0.02	-0.06	0.05	1

Hypothesis 3 is supported by the significant negative relationship between domestic political stability and CIT, significant at the 5% level in models 1 and 2, and at the 10% level in model 3. This suggests that MNEs from countries with lower political stability are more likely to engage in CIT to mitigate risks associated with domestic uncertainties. Additionally, domestic financial freedom is negatively associated with CIT, significant at the 1% level in models 1 and 2, indicating that more restrictive financial environments drive MNEs to use CIT.

Several other institutional variables also show significant relationships with CIT. Domestic GDP and merchandise trade as a percentage of GDP do not show significant impacts, indicating that these economic factors are less relevant to CIT. The variables for domestic Net National Income (NNI) per capita and urban population percentage also show no significant relationship with CIT. Overall, the analysis highlights the complex nature of CIT and the significant role of institutional factors. The relatively low R^2 values in the OLS model (0.088, 0.099, and 0.169) reflect the inherent complexity of CIT as an empirical phenomenon. CIT is influenced by a vast array of institutional, regulatory, and firm-level factors, many of which are difficult to observe or quantify within the constraints of national-level datasets. While the model includes key determinants such as regulatory quality, rule of law, political stability, and financial freedom, numerous other variables—such as bilateral tax treaties, financial secrecy laws, and sector-specific investment characteristics—likely play a significant role but are not directly captured in the analysis. Furthermore, the cross-sectional nature of the data limits explanatory power, as it provides only a snapshot of CIT behaviour at a specific point in time. A panel data approach, were it available for a longer time horizon, could potentially enhance explanatory power by capturing temporal patterns and fixed effects that influence MNE investment decisions.

Despite these limitations, the model provides meaningful insights into systematic biases in CIT measurement, as evidenced by the statistical significance of key explanatory variables. The low R^2 does not invalidate the findings but rather reflects the challenges of quantifying MNE investment flows, which are often obfuscated by the use of offshore intermediaries and complex ownership structures. Many of the relationships examined in this study, particularly those concerning regulatory quality, financial freedom, and rule of law, remain statistically robust, demonstrating that CIT is not a random occurrence but follows identifiable patterns linked to institutional environments. This study, therefore, makes an important methodological contribution by highlighting the shortcomings of traditional FDI data and by advocating for more refined empirical approaches, such as the use of UIC data. While acknowledging the limitations posed by measurement challenges and omitted variables, the findings reinforce the necessity of adopting more sophisticated methods, including panel data analysis and firm-level investigation, to deepen understanding of MNE investment strategies and their implications for international business research.

2.7 Discussion

2.7.1 Why do MNES from countries with weaker institutions have high levels of CIT?

In the field of international business, there is limited literature explaining why CIT occurs and why certain MNEs are more prone to CIT compared to others. My research extends this inquiry beyond single country studies (i.e. say those on Chinese Multinational Enterprises, CMNEs) to include MNEs from various countries with weaker institutions. The findings confirm that MNEs from these types of countries exhibit higher levels of CIT compared to enterprises from

more developed nations. Several factors likely contribute to this, including regulatory quality, political stability, financial freedom, and legal protections. Engaging in CIT through offshore hubs has historically been a strategic response for MNEs from countries with weaker institutions. These firms often face capital market deficits, unstable legal institutions, and unfavourable taxation environments at home. As highlighted in my analysis, MNEs from countries with higher domestic regulatory quality are more likely to engage in CIT, taking advantage of better regulatory environments abroad. Additionally, political stability and financial freedom in the home country significantly influence CIT activities, as shown by the negative relationships in the model. These findings align with the broader concept of institutional arbitrage, where MNEs use more favourable conditions in host countries to mitigate domestic shortcomings. The literature on institutional arbitrage, particularly by Luo and Tung (2018), supports the notion that specific offshore jurisdictions are deliberately selected to address home market deficiencies. For instance, jurisdictions like Luxembourg, the Netherlands, and Ireland provide robust legal protections, advanced financial services, and favourable tax regimes, making them attractive for CIT activities. My findings indicate that these hubs are significant not only for Chinese firms but also for MNEs from other emerging markets such as Brazil, India, and Turkey. These jurisdictions enable MNEs to access international capital markets, benefit from sophisticated business services, and maintain operational secrecy and shareholder protection.

Using offshore companies in these jurisdictions allows MNEs to meet international standards and access advanced business services, such as accountants, lawyers, and investment bankers. These professionals provide the necessary advice and expertise to structure additional capital raising and international transactions, guiding MNEs into CIT relationships (Sutherland and Ning, 2011). Conducting transactions through offshore holding companies reduces barriers

imposed by home country officials and offers enhanced secrecy and protection to shareholders, allowing them to maintain shares in offshore accounts, safe from domestic bureaucratic control.

The analysis in this chapter also shows that MNEs from countries with significant differences in the rule of law and bureaucratic quality between the home and host countries are more likely to engage in CIT. The positive relationship between these variables and CIT highlights the strategic use of legal and bureaucratic efficiencies in host countries to navigate complex international regulatory landscapes more effectively. This is particularly relevant for firms from countries like Mexico and Turkey, which use hubs like Luxembourg and the Netherlands to optimise their investment strategies and manage risks associated with domestic uncertainties. By identifying the key drivers behind CIT and highlighting the specific institutional factors that influence MNE behaviour, this research provides valuable insights into how MNEs from weaker institutional environments operate. How can we improve the accuracy of studies using aggregate level data for MNE measurement? By accounting for the distortions caused by CIT, particularly focusing on the importance of regulatory quality, political stability, and legal protections of MNEs from markets with weaker institutions.

Previous studies using large samples of aggregate level data, such as those by Beugelsdijk et al. (2010), Blonigen and Piger (2014), and other studies published in leading IB journals such as the Journal of International Business Studies, have often not factored in the impact of CIT. For instance, the works of Buckley et al. (2007) and Dunning (2006) have used extensive FDI data without adjusting for CIT, potentially leading to inaccurate interpretations of MNE behaviour from emerging markets. By incorporating the findings of this research, future studies can better account for the influence of CIT, leading to more precise measurements of FDI and MNE activities.

2.7.2 Implications of CIT and the use of aggregated FDI data for measuring MNE activity

An important implication of high levels of CIT from certain types of MNEs is that measuring their activities can become more complicated. Although aggregated FDI data used as a measure of country-level value adding MNE activity is biased in several ways (Beugelsdijk et al., 2010), CIT greatly magnifies the difficulties of using FDI as a measure of MNE activity. (Beugelsdijk et al., 2010; Cantwell, 1992; Lipsey, 2007; Stephan and Pfaffmann, 2001). While the newly available OECD data illustrates the full extent to which MNEs invest in tax havens (or other intermediate countries), the empirical analysis in this chapter also shows that CIT is higher in general from countries with weaker institutions (OECD, 2022). This leads to geographical composition biases (towards the Netherlands and Luxembourg, for example). CIT, as it is highly common but distortionary to Chinese FDI data, creates real problems in using this data for measuring all MNE activity, but particularly CMNE activity. For example, much research on CMNE related outward FDI, has struggled to adequately address the distortions CIT creates (Sutherland and Anderson, 2015). Some studies looking at the country location determinants of Chinese FDI, for example, have used aggregated MOFCOM FDI data without addressing the issue. Huang and Wang (2011), for example, incorrectly include tax haven destinations (i.e. the Bahamas and Luxembourg). Others have acknowledged the problem but simply ignore the biases introduced, 'as there are no more reliable sources' (Armstrong, 2011: 28).

The issue of SPE use in tax haven or offshore financial centres, therefore, affects many empirical studies that use official nationally aggregated FDI data to explore things like the locational determinants of MNE outward FDI (such as China) (Sutherland, Hennart, and

Anderson 2019). These findings further reinforce the message that relying upon aggregated country level data is a perilous exercise when it is used to measure MNE activity.

2.7.3 Implications for International Business Theory

Following from the above, we may consider how our understanding of international business theory may change if better efforts were made to account for the distortionary impacts of CIT on measuring MNE activity from countries with weaker institutions. To date, as I have argued, a great deal of theory has been tested using the old aggregated FDI data (i.e., without UIC information). Many leading studies have made basic errors in their inclusion or (blanket) exclusion of some foreign subsidiaries. These studies, which rely upon aggregate FDI data (which the recent OECD data on ultimate and immediate ownership shows, quite clearly, to be incorrect), need to be re-evaluated and tested using more accurate data that properly accounts for CIT.

Regarding mainstream theory related to emerging market MNEs, the findings in this chapter highlight the significant role of institutional arbitrage as a mechanism commonly used by these firms. Specifically, MNEs from countries like China, Brazil, and India utilise offshore hubs as important conduits for further 'onward-journey' investments (i.e., real FDI), and to address domestic market imperfections such as those related to capital markets and legal institutional voids. For example, Brazil's significant routing of FDI through Spain, as evidenced by the high CIT index (Table 1.1), illustrates how these offshore hubs facilitate capital movement to mitigate domestic deficiencies. The literature on emerging market MNEs should more fully and explicitly incorporate the role of offshore incorporation in the strategies of these firms. To date, the offshore incorporation of emerging market MNEs has not been examined in as much

detail as it might be. It has often been treated in a rather casual way. This oversight may also explain the aforementioned problems encountered by many studies undertaking empirical testing. While the use of tax havens does not align easily with mainstream International Business theory, which tends to focus on motives such as market, efficiency, and asset-seeking behaviours, it clearly is a very common and important aspect of MNE activity for firms from emerging markets, like China, Brazil, and India.

The findings of this study align with recent research on institutional arbitrage, which highlights how MNEs strategically exploit differences in institutional environments to optimise their global investment portfolios. For example, Tang (2021) demonstrates how emerging market firms engage in institutional arbitrage by escaping home institutional constraints and leveraging host-country institutional advantages. Similarly, Perkmann, Phillips, and Greenwood (2022) argue that actors actively create and leverage institutional complexity to gain strategic advantages, such as accessing new resources or circumventing constraints. These studies underscore the importance of institutional differences in shaping MNE behaviour, supporting the focus on political stability, rule of law, and regulatory quality in this study. Furthermore, Chen, Chen, and Hung (2022) show how regulatory distance between home and host countries affects firm behaviour, particularly in the context of financial transparency. Their findings highlight how firms adjust their strategies based on differences in regulatory environments, further reinforcing the argument that institutional differences play a central role in shaping MNE investment strategies.

Going forward, international business studies need to be more aware of the role of offshore incorporation and better incorporate such activities within existing models. Recognising the strategic use of CIT by MNEs from weaker institutional environments can lead to more

accurate and comprehensive theoretical frameworks. This will not only enhance the reliability of empirical research but also provide more informed insights for policymakers aiming to regulate global FDI flows more effectively. By integrating the insights from recent studies on institutional arbitrage (Tang, 2021; Perkmann, Phillips, & Greenwood, 2022; Chen, Chen, & Hung, 2022), future research can develop a more nuanced understanding of how MNEs navigate institutional differences to optimise their global operations.

2.7.4 Managerial Implications

As the findings suggest, the use of offshore structures has been quite common among MNEs from countries with weaker institutions. Such structures allow these MNEs to raise capital overseas, addressing inadequate domestic capital markets. In order for such offshore structures to work, however, regulators and policy-makers in these countries have, until recently, been quite accommodating. Recent policy shifts in several emerging markets have created significant disruption to these practices. For example, Brazil has implemented stricter regulations on capital flows and tax avoidance, impacting MNEs that rely heavily on offshore structures for financing and investment. Similarly, in India, the government has increased scrutiny on overseas investments and tightened regulations to curb the misuse of offshore entities for tax evasion and round-tripping. Many tech giants from these emerging markets, such as Brazil's Petrobras and India's Infosys, have also been subject to greater discipline and scrutiny from central policy-makers regarding their financing and offshore activities. The financing mechanisms behind these deals often rely heavily on complex offshore structures using SPEs and sophisticated legal mechanisms to circumvent domestic restrictions. Geopolitical tensions have further complicated these matters. For instance, tensions between the US and several emerging markets have led to efforts to make it harder for foreign firms to

exploit US capital markets, including subjecting these firms to greater accountability and disclosure rules. This is evident in the increased scrutiny of MNEs from countries like Turkey and Mexico, which have historically used offshore hubs like Luxembourg and the Netherlands to facilitate capital movement.

From a managerial perspective, particularly for executives in the financial sector and investment community engaged with firms from these emerging markets, as well as the executives of these firms looking to exploit international markets, it is crucial to understand the nature and reasons for offshore incorporation. This understanding will be essential as they navigate the evolving regulatory landscape. Our results showed that MNEs from countries like Brazil, India, and Turkey have historically exploited offshore companies to undertake FDI to third countries. As restrictive regulations and pressures mount on both domestic and international fronts, these MNEs will have to consider other options. This, in turn, could have a negative impact on outward FDI flows from these countries as their access to offshore capital markets becomes more restricted and subject to greater regulatory scrutiny. The evolving policies and regulatory pressures highlight the importance of understanding offshore incorporation's strategic use and its implications for international business activities and FDI flows.

2.8 Conclusion

We still do not know very much about the why MNEs from certain countries choose to do CIT. Mainstream research attention on CIT has only surfaced in more recent times owing to growing about how IB scholars accurately measure MNE activity (Sutherland and Hennart, 2022). In investigating the global context using the newly available OECD data on FDI recorded by

ultimate investor, I have shown that CIT is unusually common for MNEs from countries with weaker institutions. This has important implications for our understanding of MNE activity. From a policy perspective, gaining better insights into CIT is crucial if we are to better understand MNE investment strategies. We cannot undertake meaningful analysis of MNEs if we do not have a good understanding of the data used to measure MNE activity, at both aggregated and firm-level (Chapter 3).

CIT is commonly associated with MNE tax optimisation strategies, which can lead to the erosion of a nation's tax base. Better understanding the particular CIT hubs used, may help in formulating relevant policies to address erosion of this base. Both are also closely linked to MNE 'escape' responses and institutional arbitrage. Moving offshore may weaken the bargaining power of governments vis-a-vis businesses, with a potentially wide range of impacts for national economies. MNEs use complex webs of ownership chains spanning multiple, often offshore, jurisdictions. While this creates problems for measuring MNE activity, it also has wider implications for the general monitoring and regulation of such corporations. The approaches I have put forward, by triangulating firm-level with UIC data, may facilitate understanding the key transit hubs for MNEs, including country-specific preferences for different types of MNEs. Such understandings may lead to more appropriate regulation.

By addressing these issues, the findings in this chapter contribute to a more accurate and comprehensive understanding of global MNE activities, thus enhancing the theoretical frameworks within international business and providing valuable insights for policymakers.

Chapter 3: Capital in Transit – Firm Level

3.1 Introduction

This research builds on the foundational studies by Borga and Caliandro (2018) and Casella (2019), which explored the extent of conduit/CIT-related FDI. By extending their methodologies to include ultimate investors, this chapter aims to provide a clearer understanding of how MNEs route their FDI through intermediary jurisdictions. Specifically, the chapter addresses two key objectives: (i) identifying the offshore locations frequently used by MNEs for CIT using firm-level data, and (ii) determining the types of businesses employed by MNEs to facilitate CIT-related FDI using firm-level data of 450,000+ foreign subsidiaries. This analysis helps in more accurately distinguishing genuine foreign subsidiaries from those primarily involved in CIT. This will improve the precision of MNE activity measurements in empirical studies that use firm-level databases, in particular Orbis (BVD), to identify foreign subsidiaries (Andrews and Meyer, 2023; Yang and Driffield, 2022; Estrin, Meyer and Pelletier, 2018; Jones and Temouri, 2016; Jindra, Hassan and Cantner, 2016). The Orbis database is becoming highly used in IB research (Hennart and Sutherland, 2022), as it allows, among things, users to quickly create large-scale samples of MNEs from multiple national jurisdictions to test hypotheses. Further, Orbis allows researchers to quickly and efficiently compile large samples of MNE parent firms from various countries and identify their foreign subsidiaries. However, these studies often fail to properly account for foreign subsidiaries that are engaged in CIT (Hennart and Sutherland, 2020).

The primary aim of this chapter is therefore to identify and show using MNE firm-level data derived from Orbis (as opposed to aggregated OECD data used in the earlier chapter) (i) which types of firms (based on their NACE codes) may be being used as SPEs and (ii) which countries

are likely hosts for CIT by MNEs. This in turn leads us to better understand how firm-level data, specifically at the level of individual subsidiaries, is frequently recorded as being 'real' FDI in empirical studies using firm-level data (see Table 2.1 below) when in reality these firms may be engaged only in SPE related activities (i.e., CIT). For example, subsidiaries counted at the firm-level in the Netherlands are in fact included in many studies on Chinese MNEs (CMNEs), whereas in reality many are in fact SPEs and used for CIT (Sutherland, Hennart & Anderson, 2019). Many IB studies on MNEs (shown in Table 2.1), all include the Netherlands in their 'true' FDI estimations. However, recent OECD data on immediate and ultimate ownership (see Chapter 2) shows that 19 of the US$20bn of Chinese FDI to The Netherlands is SPE related (OECD, 2022). Many IB studies generate samples of many thousands of MNE foreign subsidiaries (see Table 2.1) – in some cases even millions (Estrin Meyer and Pelletier, 2018).

As IB researchers, it is very hard to know which foreign subsidiaries are created for the use of CIT, and to date, at the firm-level, there is a large degree of uncertainty of how to disentangle real from shell companies. A contribution to IB literature of this research is therefore to go beyond country identification and blanket exclusions (current best practice in most empirical studies) to find out what types of firms are used for CIT and in which countries. By doing so we can in addition get a better sense of the scale of 'pass-through capital'. Intermediary 'special purpose entities' (SPEs), like investment holding companies, in havens like the British Virgin Islands, Netherlands, Luxembourg, Hong Kong and the Cayman Islands, figure ever more prominently as both destinations and origins for bilateral FDI (Borga, 2016; OECD, 2015). However, CIT can take place in all jurisdictions, not just tax havens. UNCTAD, for example, in its flagship World Investment Report exploring global MNE activity, took the decision to veer away from its heavy dependence on nationally aggregated FDI data, while the OECD are

suggesting that those agencies who collect such FDI data should take into consideration these shell companies so that CIT investments can be better identified and mitigated (UNCTAD, 2022; Cadestin et al., 2018).

3.2 Background

To build further context, I first highlight the issues that can be created regarding the use of 'true' FDI data for the purpose of measuring MNE activity, and, how SPE creation and CIT impacts this. Further, I draw on evidence associated with MNEs and their movement towards greater volumes of CIT in their outward FDI (OFDI) activity.

3.2.1 The problems with Capital in Transit and Special Purpose Entities

MNEs frequently diversify their FDI portfolios geographically via 'special purpose entities' (SPEs) (Sutherland and Anderson, 2015), and as discussed in more depth below, the problem of including all FDI amounts in FDI estimations is becoming an apparent issue (Sutherland et al., 2022). SPEs often 'have little or no employment, or operations, or physical presence in the jurisdiction in which they are created by their parent enterprises' (OECD, 2008:100). These SPEs are predominantly located offshore in tax haven jurisdictions, and while they do not typically carry out any business production, they are often used to transit capital (Haberly and Wojcik, 2015). Subsequently, when used for the purposes of understanding MNE activity, FDI data is compromised as a result of SPE-related FDI (Damgaard, Elkjaer, & Johannesen, 2019; Lane & Milesi-Ferretti, 2018; Blanchard & Acalin, 2016).

As shown in Table 2.1, secondary data taken from firm-level datasets such as Orbis is progressively being used by IB scholars. Orbis is very appealing in the IB space as it holds firm-level data on an international scale, covering more than 130 million companies across the globe. Its capacity to determine substantial samples of global MNEs makes it a commonly used source for scholars (Yang, Martins, & Driffield, 2013). For example, when scholars aim to analyse MNE activity between developed and emerging markets (Jones & Temouri, 2016), Orbis could be deemed as highly suitable due to its wide range of international firm-level data. However, despite the extensive use of Orbis in studies analysing MNEs (Estrin, Meyer, and Pelletier, 2018; Jindra et al., 2016; Yang, Martins & Driffield, 2013), a significant and often overlooked concern within IB literature is the identification of subsidiaries used for CIT purposes within these foreign subsidiary samples. Some studies have used the count data of foreign subsidiary locations as a dependent variable to test motivations for outward FDI (Ramasamy, Yeung, and Laforet 2012). For example, Liang, Ren, and Sun (2014) construct a 'degree of globalization' index for CMNEs, looking at ratios such as foreign assets to total sales, and the number of overseas subsidiaries over the total number of subsidiaries (domestic and global). They argue that this approach 'depicts the extent of geographical-operations dispersion across countries and is widely applied in globalization research' (Liang, Ren, and Sun 2014, p8).

However, there are evident issues with these indices, as they are significantly influenced by subsidiaries set up for CIT purposes. The consideration of the number of overseas subsidiaries over the total number of subsidiaries (domestic and global) is likely to be severely distorted by the large number of investment-holding companies incorporated to facilitate CIT. This issue is supported by another JIBS article published in May 2014. Using a similar approach, Lu et al. (2014) identified foreign subsidiaries from listed firms in Shanghai and Shenzhen. The most

common locations included Hong Kong (278 subsidiaries), the BVI (58 subsidiaries), and Singapore (26 subsidiaries), to name just a few (Lu et al., 2014). In fact, of the total 702 subsidiaries owned by Chinese-listed firms, 414 were potentially related to CIT purposes (i.e., set up for round tripping or CIT). It can be concluded that many leading academic IB research studies (e.g., the JIBS examples mentioned above) have not correctly addressed the influence of subsidiaries used for CIT purposes when undertaking empirical analyses of MNE activity.

3.2.2 The Role of Offshore Jurisdictions in Facilitating CIT for MNEs

After Sutherland and Ning (2011) highlighted their concerns regarding the increasing volumes of CIT related OFDI from MNEs over a decade ago, later studies supported these arguments (Ning and Sutherland, 2012; Buckley et al., 2015; Anderson and Sutherland, 2015). Suggestions were made that a key determinant for offshore incorporation among MNEs was associated with domestic tax policies, which had incentivised inward FDI from global corporations by offering reduced rates of corporation tax (Sutherland and Anderson, 2015). Subsequently, Fung, Yau, and Zhang (2011) found that such tax policies encouraged MNEs to establish themselves as overseas corporations by engaging in the 'round-tripping' of capital via offshore transit hubs such as Hong Kong. Further, as Buckley et al. (2015) highlighted, offshore jurisdictions such as the Cayman Islands specialise in providing access to global capital markets, while also acting as a transit hub for additional FDI movements. By providing such offshore services, offshore markets like the Cayman Islands can compete competitively with other jurisdictions. This supports earlier work by Sutherland and Ning (2010), who argued that access to such offshore services subsequently provides a motivation for firms to acquire more

knowledge and insight into offshore markets and develop the necessary skills to exploit the offshore world to engage in more significant capital in transit opportunities.

Estrin, Meyer, and Pelletier (2018) discussed how political economy and institutional contexts impact the internationalisation of state-owned enterprises. They highlighted that political and economic policies in home countries often push MNEs towards offshore hubs to optimise tax liabilities and leverage better financial services. This supports the argument that domestic policies significantly influence MNE behaviour, driving them towards offshore jurisdictions. Due to the 'imperfect' domestic capital markets in several emerging economies (Buckley et al., 2015), incentives to exploit offshore capital are provided to a significant number of large MNEs, including firms such as Alibaba and Tencent (Sutherland et al., 2022). As such, these types of MNEs have the opportunity to fund additional overseas investments, thus incentivising 'onward-journey' FDI. MNEs from markets with more fragile institutions may look to take advantage of some of the appealing aspects of the offshore markets. Gaur, Ma, and Ding (2018) further explored the role of home country conditions in influencing outward FDI from Chinese firms, emphasising that unfavourable home conditions such as stringent regulations and limited financial resources drive MNEs to seek more favourable conditions abroad. This aligns with the broader trend of MNEs from various emerging markets utilising offshore hubs to mitigate domestic constraints.

Whether this be zero corporation tax, advanced business resources, infrastructure and services, more liquid capital markets, or more developed and refined legal institutions, all or some would seem favourable features to MNEs. Further, and more importantly, the above features may go beyond encouraging an offshore presence by subsequently acting as the catalyst for CIT, while the institutional fragilities in domestic markets may explain why MNEs have a greater

propensity to engage in CIT than those from more stable markets. Ascani, Crescenzi, and Iammarino (2016) provided empirical evidence on how FDI influences innovation in European regions. Their findings suggest that offshore hubs like Luxembourg and the Netherlands play crucial roles not only in capital transit but also in facilitating innovation and business operations for MNEs from different regions. This indicates that the use of offshore hubs is a global phenomenon, driven by the need for better business environments and more efficient capital allocation.

3.3 Research development

If certain types of MNEs indeed have a greater propensity to carry out CIT than other types of MNEs, then it is crucial to identify which offshore hubs are being used to transit FDI and what types of companies are used. Numerous offshore hubs consistently appear as recipients of FDI from various countries, with some being more prominent in official FDI data. For example, the Cayman Islands, Hong Kong, and the British Virgin Islands have been highlighted as significant transit hubs (Sutherland, Hennart, and Anderson, 2019). This suggestion is supported by earlier findings by Morck, Yeung, and Zhao (2008), who discovered that a substantial portion of FDI was located in these hubs. More recent data also ranks these locations as top recipients of FDI globally (MOFCOM, 2016).

If numerous studies and evidence consistently identify certain offshore hubs as frequent recipients of the highest volumes of FDI, then the notion of coincidence can rightfully be questioned. Offshore hubs like the Cayman Islands, Hong Kong, and the British Virgin Islands, along with others like Singapore, the Netherlands, and Luxembourg, offer favourable

conditions that attract MNEs for CIT activities. These conditions include favourable tax policies, advanced business resources, and robust financial and legal systems. To date, there has been little evidence provided on which national jurisdictions (including offshore THOFCs) are systematically used by MNEs for CIT. This research aims to fill that gap by identifying the offshore locations frequently used for CIT and determining the types of businesses employed by MNEs to facilitate CIT-related FDI.

Desai, Foley, and Hines (2006) further explore the motivations behind FDI in tax havens, concluding that MNEs use these locations to optimise their tax obligations and improve global operational efficiency. This supports the research question that specific offshore hubs, such as the Cayman Islands, Hong Kong, and the British Virgin Islands, are integral to CIT strategies. Additionally, Haberly and Wojcik (2015) delve into the geography of offshore finance, underscoring the centrality of certain jurisdictions in the global FDI network. Their study provides empirical evidence on the concentration of FDI in key offshore locations and the implications for global capital flows. While previous studies have identified that CIT occurs through major offshore jurisdictions such as Luxembourg, the Netherlands, and Hong Kong, these analyses have typically relied on aggregated national-level data, limiting their ability to accurately distinguish between genuine investment activities and conduit structures (Beugelsdijk et al., 2010; Sutherland & Anderson, 2015). This study addresses this limitation by leveraging firm-level data from the Orbis database, allowing for a detailed examination of subsidiary structures and their roles in CIT. The novelty of my approach lies in (i) systematically identifying which types of subsidiaries are involved in CIT, (ii) uncovering less frequently discussed transit hubs such as Malaysia, and (iii) providing empirical evidence that specific NACE-coded firms (e.g., NACE 6420 investment holding firms) are disproportionately associated with CIT. These insights contribute to IB literature by offering a

more precise methodology for detecting CIT, moving beyond traditional reliance on aggregated FDI data. Thus, this leads to the first research question:

> ***Research Question 1***: *which specific offshore locations are frequently used by MNEs for conducting CIT activities?*

Table 2.1 below presents a selection of studies from the past decade that have utilised Orbis to generate samples of large foreign subsidiaries. These studies have employed firm-level data from Orbis to investigate FDI activities by MNEs, including those focusing on foreign subsidiaries established by MNEs. However, these studies have not addressed the important aspect of CIT and the extent of 'real' business activities conducted by these foreign subsidiaries. For instance, the study by Estrin, Meyer, and Pelletier (2018) on emerging market MNEs was based on a sample of over 1.6 million foreign subsidiaries extracted from the Orbis database. The question remains: how many of these subsidiaries are actually CIT related investments? While their model included 31 OECD host countries, it did not differentiate between bona fide subsidiaries and those in conduit offshore financial centres like the Netherlands and Luxembourg (Garcia-Bernardo et al. 2017).

Table 2.1 Studies that have relied on substantial ORBIS foreign subsidiary samples

Study	ORBIS foreign subsidiary sample	Study purpose
Estrin, Meyer & Pelletier (2018)	1,644,226	EMNE FDI location choice
De Jong & Van Houten (2014)	568	Internationalization on MNE performance & cultural diversity
Contractor, Yang & Gaur (2016)	9,280	Distance and the value of MNC parent intangible assets
Yang, Martins & Driffield (2013)	19,070	Multinational Performance & the Geography of FDI
Yang & Driffield (2022)	82,226	Benefits of location decisions on MNE performance
Bhaumik, Driffield & Zhou (2016)	65,535	Country & firm specific advantages, and multinationality
Alon, Eila & Li (2020)	401	Greenfield or M&A – Chinese MNE OFDI

Moreover, the inclusion of countries like Switzerland, Hungary, and the United Kingdom (Hers et al. 2018) in these studies raises concerns as they did not distinguish between CIT related subsidiaries and bona fide entities. Their findings indicated that approximately 40% of the subsidiaries created by Brazilian MNEs were in the Netherlands. A recent study by Hennart and Sutherland (2022:2070) underscored that '60% of the outward FDI flows of Brazil went to SPEs based in six countries,' including the Netherlands. As detailed in the section 'The problems with Capital in Transit and Special Purpose Entities,' many studies have not considered SPE-related investments in their FDI estimates. Newly published OECD data, which separates the FDI stock by 'instrument,' shows that 65% of the approximately 4.4 trillion USD FDI stock in the Netherlands was SPE-related. This suggests that many Brazilian subsidiaries in the Netherlands listed in Orbis may actually be SPEs. Supporting this, Hennart and Sutherland (2022) found that around 36% of 173 Brazilian subsidiaries in the Netherlands were labelled as investment holding companies with a NACE code of 6420.

Ultimately, the significant number of subsidiaries used for CIT purposes and their irregular distribution across host markets poses a serious issue. Failing to distinguish CIT-related subsidiaries from bona fide ones likely undermines the credibility of current and future studies, especially those relying on subsidiary counts to analyse the distribution of foreign investment over time and across industries. It is challenging to differentiate which foreign subsidiaries created by MNEs are primarily shell or conduit companies versus those engaged in real business activities. Many empirical studies (e.g., exploring MNE location choices by Buckley et al. 2007; Kang and Jiang 2012; Ramasamy et al. 2012; Huang and Wang 2013; Jindra et al. 2016) either incorrectly include or entirely exclude these companies as bona fide subsidiaries, leading to significant sampling issues. To date, it is difficult to determine which foreign subsidiaries are created for CIT purposes, and at the firm level, we struggle to distinguish real

from shell companies. A common but imperfect approach is to exclude all foreign subsidiaries in specific countries, typically tax havens and offshore financial centres (e.g., BVI, Cayman Islands, Hong Kong, etc.). Overlooking this critical area, particularly when assuming such ‘pass-through capital’ accounts for ‘true’ FDI, invalidates these studies, which is alarming given that pass-through capital appears to be growing faster than 'real' FDI.

For more beneficial results and a significant contribution to IB research, we need to identify which types of companies are more likely to be SPE s rather than merely excluding companies based on location. By identifying firms with specific NACE codes in certain industries that are likely to be SPEs created for investment holding and onward investment, we could exclude these industry codes more accurately. Although conduit FDI hubs set up SPEs to optimise MNEs’ investment strategies, some conduit FDI can also operate via non-SPEs. The critical question is: how many foreign subsidiaries are actually transit vehicles for CIT? Further complicating this, a company can have multiple NACE codes, and its foreign subsidiaries can each have multiple NACE codes. This multiplicity is because they conduct business operations in various areas, but Orbis lists the NACE code of their core operations first. For example, Orbis showed that Tencent, a Chinese technology and entertainment MNE, had 143 foreign subsidiaries in 36 different countries, 31% of which were in offshore jurisdictions. While a single MNE can have multiple NACE codes (Alibaba has 9 different secondary NACE codes), each foreign subsidiary typically has one primary and one secondary NACE code. For instance, Riot Games Inc., a foreign subsidiary of Tencent located in the US, had a primary NACE code (5829 - Other software publishing) and a secondary NACE code (4765 - Retail sale of games and toys in specialized stores).

To further illustrate the problem, many foreign subsidiaries in specific industry codes may be functioning as investment holding companies, which empirical researchers must consider when studying MNEs. This issue is global, and examples (see Table 2.2) highlight MNE foreign subsidiaries with genuine operating revenue and employee numbers that also own foreign subsidiaries in different locations. These subsidiaries often have a secondary NACE code of 6420 (investment holding companies) and a primary NACE code significant in my logit regression model in Table 6. Additionally, these foreign subsidiaries often own other subsidiaries in various jurisdictions, further emphasizing the reality of MNE foreign investment holding subsidiaries. Quantitative regression analysis across all NACE code 6420 associated subsidiaries can highlight significant relationships and commonality among certain industries.

Several IB studies on MNE activity (Sutherland, Hennart, and Anderson 2019; Hennart and Sutherland 2022; Sutherland et al. 2022) have researched global subsidiary creation and whether these subsidiaries have a NACE code of 6420 (investment holding companies). However, they have not explored the industries these NACE 6420 subsidiaries are connected to. MNEs can theoretically use any type of foreign subsidiary to transit capital (i.e., undertake CIT). Firm-level studies, such as those by Liang, Ren, and Sun (2015) and others (Lu & Beamish 2004; Tallman & Li 1996; Zahra 2003), typically take a bilateral approach by counting the number of foreign subsidiaries in a country. One type of company, the 'investment holding company' (IHC), is created to own shares in other companies, including both domestic and foreign firms. Thus, this leads to the second research question as follows:

> ***Research Question 2****: which types of businesses, as identified by their primary NACE codes, are more likely to facilitate CIT-related FDI?*

Table 2.2 An Example – China: Chinese foreign subsidiaries using non-tax haven locations as transit vehicles

CMNE Company name	NACE Rev. 2, core code (4 digits)	Operating revenue (Turnover) th USD Last avail. yr	Number of employees Last avail. yr	FIRST Foreign Subsidiary Company name	Subsidiary Country ISO code	Subsidiary - PRIMARY NACE Core code	Subsidiary - SECONDARY NACE Core code	SECOND Foreign Subsidiary - Country ISO code	SECOND Subsidiary - PRIMARY NACE Core code
ZHONGYU ENERGY HOLDINGS LIMITED	4221	1,683,197.06	5,067	SINO GAS INTERNATIONAL HOLDINGS, INC.	US	3522	6420	VG	2611
WOLONG ELECTRIC GROUP CO.,LTD.	2811	2,202,582.26	14,800	ATB AUSTRIA ANTRIEBSTECHNIK AKTIENGESELLSCHAFT	AT	7010	6420	GB	2811
KPC PHARMACEUTICALS, INC.	2110	1,193,717.87	5,322	RANI THERAPEUTICS LLC	US	2120	6420	PL	4669
TANAC AUTOMATION CO., LTD.	2790	27,491.84	671	TANAKA SEIKI (MALAYSIA) SDN. BHD.	MY	6831	6420	SG	6420

3.4 Methodologies

There are several approaches I describe beneath to investigate the phenomenon of CIT-related FDI. First, this I focus on identifying country 'transit hubs' frequently used by MNEs for CIT. Second, it will examine the industry-level connections by exploring the types of secondary NACE codes associated with the primary NACE code for investment holding (6420) in MNE foreign subsidiaries. These approaches aim to provide a comprehensive understanding of the patterns and practices of CIT at both the country and industry levels.

3.4.1 Data collection

The research method in this chapter relies on using NACE codes, specifically NACE code 6420 for 'investment holding'. Investment holding companies, which hold shares in other companies, can be used as SPEs for CIT or onward-journeying. This raises the question: what secondary NACE codes are associated with investment holding companies in MNE foreign subsidiaries? Identifying these codes can provide insights into the types of foreign subsidiaries used for CIT.

The data sample is derived from the ORBIS database, encompassing detailed information on MNEs and their foreign subsidiaries, categorized by primary and secondary NACE codes. This sample includes both developed and emerging markets, with significant representation from countries such as the United States, Cayman Islands, Bermuda, and China. My dataset contains 457,172 subsidiaries, illustrating the extensive reach of MNEs. Developed countries like the United States (96,766 subsidiaries), the United Kingdom (41,598 subsidiaries), and Japan (45,163 subsidiaries) have the highest counts, reflecting their prominent roles in global

business. Emerging markets such as China (7,267 subsidiaries) and India (9,857 subsidiaries) also show substantial numbers, indicating their growing economic importance. Within this total, 70,714 subsidiaries (15%) are in THOFCs, highlighting the strategic use of these jurisdictions for tax planning. Countries like the Cayman Islands (7,726 THOFC subsidiaries, 36%) and Bermuda (7,434 THOFC subsidiaries, 38%) have high concentrations of THOFC subsidiaries. Developed countries like the United States (16,059 THOFC subsidiaries, 17%) and the United Kingdom (5,397 THOFC subsidiaries, 13%) also utilise THOFCs significantly. Emerging markets such as China (3,220 THOFC subsidiaries, 44%) and India (1,615 THOFC subsidiaries, 16%) show notable THOFC activity. For the regression analysis, the sample is taken from the 70,714 THOFC subsidiaries to focus on CIT-related FDI (i.e., those subsidiaries associated with a NACE code of 6420, investment holding company). Within this subset, 34,855 subsidiaries are associated with NACE code 6420.

3.4.2 Transit hubs, and Capital in Transit at the country and industry level

The first aim is to explore whether there are particular country 'transit hubs', ones that are more commonly used by MNEs for the purposes of CIT. Orbis Bureau Van Dijk (OBVD) is a firm level database that holds the information of over 220 million firms globally. It is often utilised first to identify MNE' subsidiaries, typically using all foreign (i.e., non-domesitc) firms that typically have a global ultimate owner (GUO), headquarters and majority shareholders in their home/domestic market. There are, however, also issues with this approach, as I will show in the next chapter (Chapter 4) (as many MNEs have a GUO/and or headquarters incorporated not in their home country, but elsewhere, i.e., Cayman Islands. To investigate which exact hubs are being used by MNEs when potentially carrying out CIT, the Orbis database can be used to follow the immediate ownership chains to identify; first, all subsidiaries with a recognised

GUO by identifying the immediate owners for each of these foreign subsidiaries, and second, identify all subsidiaries with a non-domestic GUO. This approach ensures that the study addresses patterns observed globally, enhancing the robustness and relevance of the research. A measurement problem that will be explored in greater detail in Chapter 4 involves inversions. These inversions hide the true provenance and origins of MNEs (Hanson et al., 2015), therefore, by utilising the immediate owner identification approach mentioned above, I was able to identify a sample of inverted MNEs. To emphasise, firms often have an ultimate controlling corporate owner in offshore markets such as: the Cayman Islands or the British Virgin Islands, while almost all of their 'real' operations are in their domestic markets, which adds to the problems for our understanding of MNE identity. Moreover, as firm-level databases such as Orbis apply the assumption that for example a CMNE has an ultimate owner in China, or a U.S. MNE has an ultimate owner in the U.S., which is not always true, this makes the above problem more serious.

Using the above procedures, I captured all foreign subsidiaries of MNEs across all countries and for each of these subsidiaries, both the 2-digit ISO location (For example, KY – Cayman Island; HK – Hong Kong) and the primary and secondary industry NACE codes were collected. The purpose of including multiple levels of NACE codes for each subsidiary, is to ensure I capture whether each subsidiary is associated with a NACE code of 6420 at any level, not just at the primary or secondary. For example, I identify 34,925 Chinese subsidiaries in 113 countries, of which 59% were located in 37 OECD economies and around 47% in 76 non-OECD countries (Table 2.3). Interestingly, approximately 44% of all Chinese overseas subsidiary creation happens in offshore jurisdictions (locations or countries that potentially provide financial and legal advantages for individuals and businesses, which in this case are

CMNEs, e.g., the Cayman Islands, BVI, Bermuda, the Netherlands, Ireland and Luxembourg). This points towards the potentially important role of transit capital in MNE FDI strategies.

Table 2.3 Example of Chinese global subsidiaries and their location

	Subsidiaries	% of total	Countries	% of Countries
Total	34,925	100	113	100
OECD	18,505	53.0	37	32.7
Non-OECD	16,420	47.0	76	67.3
Tax Haven	15,232	43.6	30	26.5
Europe	18,726	53.6	40	35.4
Asia	11,792	33.8	30	26.5
Rest of the World	4,407	12.6	43	38.1

3.4.3 Variables

3.4.3.1 Dependent variable data

The dependent variable used is a binary indicator reflecting whether an MNE's foreign subsidiary is an investment holding company. MNEs often have multiple NACE codes due to their diverse business operations, and this extends to their foreign subsidiaries as well. Orbis, a comprehensive business database, lists the primary NACE code for a company's core operations first. However, the presence of multiple NACE codes complicates the analysis of MNE activities. For example, some subsidiaries may list NACE code 6420 (investment holding companies) as a secondary code, while the primary code might differ, such as "activities of head offices" (NACE 7010) or "manufacture of motor vehicles" (NACE 2910). This complexity is compounded by the common practice of CIT among MNEs, as noted by researchers like Haberly and Wojcik (2015), Desai, Foley, and Hines (2006), Damgaard, Elkjaer, and Johannesen (2019), and Lane and Milesi-Ferretti (2018). CIT poses significant challenges when attempting to accurately measure and understand MNE activity.

The primary objective of this chapter's research is to quantitatively test whether certain primary industry NACE codes are associated with the secondary industry NACE code of 6420 and to explore the industries these primary codes belong to. Using the Orbis database, I identify all subsidiaries with a secondary NACE code of 6420 and employs logistic modelling to ascertain the primary NACE codes associated with this secondary code. The hypothesis is that subsidiaries with NACE code 6420 are likely to be SPEs. For instance, Tencent, a Chinese technology and entertainment MNE, has 143 foreign subsidiaries in 36 countries, with 31% in offshore jurisdictions. Identifying the transit hubs commonly used by MNEs involves analysing subsidiaries like Riot Games Inc., a US subsidiary of Tencent, which has the primary NACE code 5829 (Other software publishing) and the secondary NACE code 4765 (Retail sale of games and toys in specialized stores). I also address the potential issues that CIT causes when using firm-level data to measure and analyse MNE activity. Many studies, including those published in leading journals such as the Journal of International Business Studies (JIBS), have misunderstood this problem, resulting in inaccurate measurements and analyses of MNE activities, which undermines their findings. Consequently, this research provides a more accurate understanding of MNE operations, and the challenges posed by CIT, emphasising the need for precise methods in the analysis of MNE activities.

To explore the first research question regarding which countries are associated with transit hubs, I utilise firm-level data from BVD, focusing on MNE foreign subsidiaries. The dataset includes two key pieces of information: the ISO country code of the host country for each foreign subsidiary and the primary and secondary industry NACE codes for each subsidiary. My objective is to understand how MNEs use intermediary jurisdictions for FDI and subsequently carry out CIT. Specifically, I am investigating how many of these subsidiaries are classified as

investment holding companies (NACE code 6420), which includes both subsidiaries with a domestic GUO and those with a non-domestic GUO.

To analyse location choice, I create two dependent variables. The first dependent variable is a dummy variable based on the secondary NACE code of each subsidiary. For example, if the secondary NACE code is 6420, indicating an investment holding company, the subsidiary is assigned a value of 1; otherwise, it is assigned a value of 0. The second dependent variable is also a dummy variable but considers both the primary and secondary NACE codes. If either the primary or secondary NACE code is 6420, the subsidiary is assigned a value of 1; otherwise, it is assigned a value of 0. By using these variables, I can empirically investigate whether MNEs tend to route FDI through specific offshore hubs by examining the prevalence of subsidiaries classified as investment holding companies (i.e., those with either a primary or secondary NACE code of 6420).

3.4.3.2 Main explanatory variables

To identify which host countries are predominantly used for CIT-related FDI, I include all the country ISO codes for each subsidiary as explanatory variables. This approach allows me to determine which host countries are preferred by the foreign subsidiaries of MNEs for CIT, and whether there is a significant relationship between these countries and offshore hubs or investment holding companies.

3.4.4 Model specification

To test (i) which specific offshore locations are used to conduct CIT by the foreign subsidiaries of MNEs, and (ii) relatedly, what type of businesses are used by MNEs to route such CIT related FDI, I ran a logit model for the following two expressions:

(i) $\text{secondaryNACEcode6420} = \alpha + \beta_1 \text{ subsidiaryISOcountrycode} + \varepsilon_{it}$

This model examines whether the secondary NACE code of each subsidiary is 6420, which indicates an investment holding company. The explanatory variable is the ISO country code of the subsidiary's host country.

(ii) $\text{SPEassociatedprimaryNACEcode} = \alpha + \beta_1 \text{ subsidiaryISOcountrycode} + \varepsilon_{it}$

This model considers a broader dependent variable by including subsidiaries with a primary NACE code of 6420, as well as other significant NACE codes associated with SPEs. The aim is to identify not just investment holding companies, but also other types of holding companies or SPEs used for routing CIT-related FDI.

In Model (ii), the dependent variable, SPEassociatedprimaryNACEcode, is created by combining significant SPE-related primary NACE codes identified in Model (i) with the primary NACE code 6420. This means that for Model (ii), any subsidiary that has a primary NACE code of 6420 or any other significant NACE code related to SPEs will be assigned a value of 1. Subsidiaries that do not fall under these codes will be assigned a value of 0. This ensures that I capture a wider range of business types used by MNEs for routing CIT-related

FDI through offshore hubs. This approach helps us better understand the broader spectrum of business types used by foreign subsidiaries to facilitate CIT-related FDI.

3.5 Results

Table 2.4 summarises the results for our first research question. It shows the log odds ratios and reports only statistically significant coefficients. This is because there are a large number of explanatory variables (i.e., 114 countries, 855 industry codes). I am, however, in essence only interested in identifying (a) countries that are associated with SPE use (b) secondary NACE codes associated with SPEs as these are the results that we are most interested in. In testing RQ1, my firm-level results confirm that MNEs do indeed route a large majority of their FDI via certain offshore hubs, including recognised (i.e., British Virgin Islands (745), Hong Kong (4,863), Singapore (5,139)) and possibly less talked about hubs in IB (i.e., the Netherlands (538) and Luxembourg) (Table 2.4). The CIT hubs mentioned above varied by host country, and while North American investments included hubs such as: Bermuda, Hong Kong and BVI, European investments targeted Luxembourg and the Netherlands. To add further context, there are 932 Chinese subsidiaries located in the Netherlands with a controlling (ownership is greater than 50%) Chinese GUO. Of these 932 subsidiaries, 242 were investment holding companies, i.e., had a NACE code of 6420. Further, within the 34,925 Chinese foreign subsidiaries, there are 5,139 subsidiaries located in Singapore that have the same controlling condition as the above (above 50%).

Using Model 2., my results found that 2,163 of these 5,139 subsidiaries are in fact investment holding companies, with a NACE code of 6420, or an SPE associated NACE code derived from Model 1. The scale of CIT is evidently significant, and while I only provide evidence on

the numbers of firms and not the size of investments, Table 2.3 indicates that approximately 44% of all Chinese OFDI is transited through an offshore jurisdiction. Accurately capturing the Netherlands as an important transit hub while also raising awareness of other transit hubs: Singapore, Luxembourg, Bermuda, BVI, and Hong Kong.

In total there are: 8 industries that are positively significant at the 1% level, 27 industries that are positively significant at the 5% level, while there are 16 industries (i.e., 4-digit NACE codes) that are positively significant at the 10% level (Table 2.5). Table 2.6 gives a clear view of the top tax havens and the main industries linked to NACE code 6420 (investment holding companies). It shows the most common industries in which these subsidiaries invest, along with their NACE codes, the number of subsidiaries, and the percentage for each tax haven. This data reveals how MNEs use tax havens strategically, with each location offering benefits for different industries. In Singapore, over half of the subsidiaries (52.17%) are involved in selling specialized products, making it a key trading hub. Hong Kong is notable for its financial services, with 11.24% of subsidiaries in trusts and funds. The British Virgin Islands have a mix of investments, including electronic components and real estate, showing its role as a varied investment destination.

The Netherlands is important for business consultancy, head office functions, and pharmaceutical goods, highlighting its role as a corporate services hub. Bermuda has a balanced spread among electronic components, real estate, and security brokerage, showing its versatility. The Cayman Islands focus on holding companies, electronic components, and electricity production, reflecting its role in both corporate and industrial activities. This table shows how common investment holding companies (NACE code 6420) are in these tax havens.

By offering favourable conditions, these locations help MNEs carry out complex investment strategies, playing a key role in global FDI flows.

Table 2.4 Host countries with a greater association with SPE use

Subsidiary Country Code	Subsidiary country	Frequency	(i) Secondary NACE Code 6420	(ii) SPE Associated Primary NACE code
AT	Austria	105	3.745*	3.75***
			-2.942	-1.542
BM	Bermuda	281	6.592**	3.059***
			-4.848	-1.154
HK	Hong Kong	4863	5.67**	4.382***
			-4.078	-1.549
LU	Luxembourg	63	64***	36.361***
			-49.037	-17.326
MT	Malta	4	32***	8.556**
			-39.396	-9.071
MU	Mauritius	11	18.286***	14.972***
			-17.429	-10.765
NL	Netherlands (the)	538	11.365***	4.23***
			-8.237	-1.54
SC	Seychelles	3	16*	17.111**
			-22.716	-21.807
SG	Singapore	5139	7.266***	6.218***
			-5.224	-2.198
VG	Virgin Islands (British)	745	10.496***	2.888***
			-7.589	-1.046
_cons			.031***	.117***
			-0.022	-0.041
Observations			30844	34855
Pseudo R^2			0.085	0.066

Robust standard errors are in parentheses
*** p<.01, ** p<.05, * p<.1

Table 2.5. Types of Firms that May be used for CIT by MNEs

Secondary NACE Code	Industry Description	Frequency	Secondary NACE 6420
729	Mining of other non-ferrous metal ores	3	73***
			-103.593
910	Support activities for petroleum and natural gas extraction	3	73***
			-103.593
2910	Manufacture of motor vehicles	59	30.417***
			-24.256
3522	Distribution of gaseous fuels through mains	19	24.333***
			-23.471
4618	**Agents specialised in the sale of other particular products**	1358	10.455***
			-7.526
7010	Activities of head offices	125	25.716***
			-19.393
8121	General cleaning of buildings	12	18.25***
			-20.516
8299	**Other business support service activities nec**	462	12.595***
			-9.266
1511	Tanning and dressing of leather; dressing and dyeing of fur	4	18.25**
			-25.898
2120	Manufacture of pharmaceutical preparations	174	4.932**
			-3.906
2351	Manufacture of cement	24	18.25**
			-25.898
2363	Manufacture of ready-mixed concrete	8	36.5**
			-57.871
2895	Manufacture of machinery for paper and paperboard production	6	18.25**
			-25.898
3514	Trade of electricity	18	8.423**
			-8.097
3700	Sewerage	5	36.5**
			-57.871
3820	Waste treatment and disposal	2	36.5**
			-57.871
3900	Remediation activities and other waste management services	8	36.5**
			-57.871
4642	Wholesale of clothing and footwear	871	.044**
			-0.054
4664	Wholesale of machinery for the textile industry and of sewing and knitting machines	12	18.25**
			-25.898
4950	Transport via pipeline	5	36.5**
			-57.871
5914	Motion picture projection activities	11	18.25**
			-25.898

6020	Television programming and broadcasting activities	20	9.125**
			-9.738
620	Extraction of natural gas	3	36.5**
			-57.871
6312	Web portals	35	5.84**
			-5.236
6492	Other credit granting	24	14.6**
			-16.085
6612	Security and commodity contracts brokerage	122	6.083**
			-4.879
6619	**Other activities auxiliary to financial services, except insurance and pension funding**	224	6.745**
			-5.152
6630	Fund management activities	117	6.404**
			-5.088
6831	Real estate agencies	253	6.59**
			-5.124
7000	Activities of head offices; management consultancy activities	2	36.5**
			-57.871
7112	**Engineering activities and related technical consultancy**	458	4.816**
			-3.55
8211	Combined office administrative service activities	54	7.3**
			-6.585
8510	Pre-primary education	29	9.955**
			-9.641
8623	Dental practice activities	8	36.5**
			-57.871
899	Other mining and quarrying nec	34	8.69**
			-7.583
119	Growing of other non-perennial crops	6	12.167*
			-16.536
1414	Manufacture of underwear	16	6.636*
			-6.975
1623	Manufacture of other builders' carpentry and joinery	6	9.125*
			-12.119
1712	Manufacture of paper and paperboard	33	5.615*
			-5.864
2221	Manufacture of plastic plates, sheets, tubes and profiles	20	6.083*
			-6.372
2391	Production of abrasive products	6	12.167*
			-16.536
2630	Manufacture of communication equipment	94	4.451*
			-3.824
3511	Production of electricity	185	4.38*
			-3.413
3832	Recovery of sorted materials	17	6.083*
			-6.372
4291	Construction of water projects	8	12.167*

			-16.536
4612	Agents involved in the sale of fuels, ores, metals and industrial chemicals	63	4.977*
			-4.174
4616	**Agents involved in the sale of textiles, clothing, fur, footwear and leather goods**	316	.117*
			-0.144
4651	**Wholesale of computers, computer peripheral equipment and software**	379	.111*
			-0.137
6430	**Trusts, funds and similar financial entities**	439	3.842*
			-2.885
7022	**Business and other management consultancy activities**	799	3.962*
			-2.886
8690	Other human health activities	63	5.034*
			-4.498
_cons			.027***
			-0.02
Observations			19996
Pseudo R^2			0.149

Robust standard errors are in parentheses

**** p<.01, ** p<.05, * p<.1*

Table 2.6. Host Tax Havens and corresponding industries for NACE code 6420 associated investments

Host Tax Haven	Alpha-2 code	Top 3 Industries Invested in	Primary NACE code	Subsidiary Count	Percentage (%)
Singapore	SG	Agents specialised in the sale of other particular products	4618	277	52.17
		Business and other management consultancy activities	7022	41	7.72
		Engineering activities and related technical consultancy	7112	34	6.40
Hong Kong	HK	Trusts, funds and similar financial entities	6430	19	11.24
		Non-specialised wholesale trade	4690	13	7.69
		Other business support service activities nec	8299	9	5.33
British Virgin Islands	VG	Manufacture of electronic components	2611	6	6.67
		Real estate agencies	6831	5	5.56
		Other software publishing	5829	5	5.56
The Netherlands	NL	Business and other management consultancy activities	7022	4	9.30
		Activities of head offices	7010	3	6.98
		Wholesale of pharmaceutical goods	4646	3	6.98
Bermuda	BM	Manufacture of electronic components	2611	2	7.14
	BM	Real estate agencies	6831	2	7.14
	BM	Security and commodity contracts brokerage	6612	2	7.14
The Cayman Islands	KY	Activities of holding companies	6420	1	6.67
	KY	Manufacture of electronic components	2611	1	6.67
	KY	Production of electricity	3511	1	6.67

3.6 Discussion

3.6.1 Geographical Biases

Ultimately, firm-level databases such as Orbis are becoming more readily available, and while their broad coverage provide scholars and those interested in MNE activity with the opportunity of significantly improving their/our understanding of MNEs, this research shows that they (Orbis) are subject to some of the same problems that affect the use of FDI flow and stock data, and that the literature has not always recognised them. My contribution is to therefore identify

which types of companies are (a) more likely to be SPEs and (b) which countries are common hosts. This is achieved through a firm-level analysis of subsidiaries using the Orbis database, with a focus on NACE code 6420 (investment holding companies), a key indicator of SPEs. By employing logistic regression models, the study identifies specific industries—such as agents specialized in the sale of particular products (NACE 4618) and activities of head offices (NACE 7010)—that are significantly associated with CIT-related activities. This approach allows for a more precise identification of SPEs based on industry codes, moving beyond blanket exclusions of subsidiaries based solely on their location.

Additionally, the research identifies the countries most frequently used as transit hubs for CIT by analysing the ISO country codes of subsidiaries with NACE code 6420. The results highlight both traditional tax havens (e.g., British Virgin Islands, Cayman Islands) and non-traditional jurisdictions (e.g., the Netherlands, Singapore, Austria) as key hosts for CIT-related FDI. These findings reveal that MNEs strategically route capital through these jurisdictions, exploiting favourable tax regimes and regulatory environments. By systematically identifying the types of firms and countries involved in CIT, this research provides a clearer understanding of how MNEs use SPEs and offshore hubs to facilitate capital transit, offering valuable insights for both researchers and policymakers.

Why is this important? By identifying firms in specific industries that are more likely to be related to the formation of SPEs created for the purpose of investment holding and onward investment, IB scholars can look to exclude these particular types of foreign subsidiaries (based on industry codes) as well as identify which countries are likely to be hubs for CIT. Further, how much of the documented FDI can be accounted for as 'true', and how much is actually SPE related? Especially when the BMD4 statistics reported by the OECD show that of the 3.5

trillion USD net FDI in Luxembourg, 95% was SPE related, while in the Netherlands, it was 65% of 4.4 trillion USD[3].

My results indicate that specific countries are more likely to be used as transit hubs by MNEs for CIT. Expectedly, the Netherlands is a significant hub for CIT among MNEs. However, the data also reveals unexpected hubs, such as Austria and Malta. Additionally, Hong Kong and Singapore are identified as major centres for establishing offshore investment holding companies. In testing RQ2, the analysis shows that certain industries are more frequently utilised by MNEs for CIT-related FDI. The NACE code 6420, (Activities of holding companies) is significant and positive across 51 industries. At the 1% significance level, it is positively significant across 8 industries. Among the various industries analysed, the category of 'Agents specialized in the sale of other particular products' (NACE code 4618) stands out with a frequency count of 1,358, indicating its importance in the activities of multinational enterprises (MNEs) engaged in capital in transit (CIT). Additionally, 'Activities of head offices' (NACE code 7010) shows a significant positive impact at the 1% level in 51 different industries. This suggests that MNEs often use head offices to manage and coordinate their CIT activities.

For instance, XIAMEN C&D INC, a large investment holding company with a turnover of 119 billion USD and approximately 32,900 employees (Bloomberg, 2023), exemplifies the role of MNEs in optimizing financial and operational strategies through the use of specific industry categories like 'Agents specialized in the sale of other particular products' (NACE code 4618) and 'Activities of head offices' (NACE code 7010). This example supports my findings that certain industries are more inclined towards CIT activities, while it also aligns with earlier work

[3] See https://stats.oecd.org/, section on 'Globalisation', within this 'FDI statistics according to Benchmark Definition 4th Edition (BMD4)' and section 'FDI position by partner country' and then by 'instrument') to access this data.

by Sutherland et al. (2019) (see Table 2.5), highlighting how large enterprises leverage these sectors to enhance their global operations. My results indicate that MNEs often establish foreign subsidiaries in strategic locations and specific industries to facilitate CIT activities. For instance, a foreign subsidiary in Singapore owned by one MNE has a primary NACE code of 7010 (Activities of head offices) and a secondary NACE code of 6420, and this subsidiary further owns another subsidiary in Germany. Similarly, SHENZHEN CENTER POWER TECH CO., LTD, a Chinese multinational enterprise with a turnover of 581 million USD and approximately 3,500 employees, owns a foreign subsidiary in Hong Kong with the same primary and secondary NACE codes (4618 and 6420), and this Hong Kong subsidiary owns another subsidiary in France. These examples further illustrate how MNEs strategically use certain industries, particularly those related to head office activities and holding companies, to optimise their CIT-related FDI. This supports Research Question 2 (RQ2), which posits that MNEs are more likely to engage in CIT-related FDI in specific industries.

Prior research by Sutherland, Hennart, and Anderson (2019) exposed a significant issue in the treatment of foreign subsidiaries in offshore jurisdictions within academic papers focused on CMNE activity published in the Journal of International Business (JIBS). These papers often failed to recognise the nature of these subsidiaries as SPEs or CIT-related investments, inaccurately treating them as 'real' investments. Consequently, these types of misclassifications distort the estimation of MNE activity and undermines the reliability of research findings. For instance, a study conducted by Liang, Ren, and Sun (2014) aimed to assess the degree of globalisation for Chinese MNEs but inadvertently included ratios that were heavily influenced by SPEs. Ratios such as foreign assets to total assets and the number of overseas branches and subsidiaries over total branches and subsidiaries (both domestic and foreign) provided distorted measures of globalisation due to the significant number of investment-holding companies

incorporated offshore, particularly for CIT purposes. Nonetheless, it is important to acknowledge that CIT activities are not exclusively confined to traditional tax havens. Instances of CIT have also been observed in countries like Malaysia, despite not being traditionally considered a tax haven. For example, the subsidiary of TANAC AUTOMATION CO., LTD., an industrial and electronic machinery CMNE, located in Malaysia (TANAKA SEIKI (MALAYSIA) SDN. BHD.), holds a secondary NACE code of 6420 and has additional subsidiaries in Singapore, alluding to the diverse nature of CIT activities across various jurisdictions. Therefore, researchers need to broaden their focus beyond conventional tax haven jurisdictions to capture the full scope of MNE activities.

3.6.2 What types of subsidiaries are used for CIT/onward-journey activity?

A more ideal approach would involve identifying firms more likely to act as SPEs rather than blanket exclusion of subsidiaries from these jurisdictions. To address this challenge, a potential methodology is suggested, relying on the observation that foreign subsidiaries may be registered under multiple NACE codes. By examining the association between primary NACE codes and the secondary NACE code of investment holding (i.e., 6420), researchers can gain insights into foreign subsidiaries that are more likely to be associated with CIT. The study's results highlight the significance of certain NACE codes, such as 702 (business and other management consultancy activities), as well as sales-related activities (e.g., sale of textiles, clothing, fur, footwear, and leather goods, wholesale of computers, computer peripheral equipment, and software), which potentially serve as indicators of the real activities of foreign subsidiaries involved in CIT.

In conclusion, the findings of this study offer further details on the geographical biases inherent in MNE CIT activities and their implications for IB research. The identification of specific countries as prominent CIT hubs, the extensive use of offshore investment holding companies, and the significance of subsidiary types and NACE codes provide valuable insights into the complex nature of MNE FDI movements. By acknowledging these nuances, researchers can develop a more accurate understanding of CMNE activities and improve the reliability of their findings. The implications discussed herein serve as a foundation for future research in the field of International Business, enabling scholars to refine their methodologies and develop a more nuanced understanding of the factors driving MNE behaviour in the context of CIT.

3.5.1 Implications of using firm-level FDI data for measuring MNE activity

If CIT causes significant issues for the use of aggregated FDI data, what are the consequences for the use of firm-level data in IB and strategy-related research? Intriguingly, these implications are as important as those concerning aggregated FDI data (Sutherland, Hennart, and Anderson 2019). Nevertheless, they are generally far less understood and not widely acknowledged. Many IB and international strategy studies also employ firm-level data to test their theories (often to determine if MNEs are somehow idiosyncratic and different from developed market MNEs). This data is usually, for instance, gathered from information on foreign subsidiaries published in annual reports or from commercial databases. The issue with many of these studies, however, is that they fail to recognise that many foreign subsidiaries are actually SPEs (or other corporate transit vehicles), often established in transit hub countries. Such transit hub countries include well-known locations, like the Cayman Islands, but also less

recognised hubs, like the Netherlands, Estonia, Luxembourg, and Switzerland. These hubs become a significant problem, as they are often not properly identified or acknowledged.

For example, studies using large samples of foreign subsidiaries from databases like Orbis, such as those by Estrin, Meyer, and Pelletier (2018), Alon, Elia, and Li (2020), Kohlhase and Pierk (2020), and Contractor, Yang, and Gaur (2016), often fail to differentiate between operational subsidiaries and those set up for CIT or as SPEs. For instance, Estrin, Meyer, and Pelletier included 1,644,226 foreign subsidiaries from both developed and emerging markets without filtering out CIT-related entities, potentially skewing their analysis of institutional reforms. Alon, Elia, and Li's sample of 152 EMNEs with 401 subsidiaries also did not account for CIT, affecting their findings on establishment modes. Similarly, Kohlhase and Pierk analysed 39,496 foreign subsidiaries to study tax incentives without distinguishing CIT-related entities, which can distort the understanding of tax management. Contractor, Yang, and Gaur's inclusion of 9,280 overseas subsidiaries did not exclude SPEs, potentially misinterpreting the impact of regulatory factors on FDI inflows. These studies should use NACE codes like 6420 (activities of holding companies) and other NACE codes which I have shown to be significant with CIT-related FDI (Table 2.5) to filter out CIT-related subsidiaries, as my regression analysis indicates these codes are significant markers of CIT activities. Implementing this differentiation could enhance the accuracy of their results, leading to a more precise understanding of MNE behaviours.

Further, our understanding of MNE-related theories may change significantly if we better account for the distortionary impacts of CIT on measuring MNE activity. As emphasised above, many studies have used incorrect data, leading to basic errors in including or excluding foreign subsidiaries. These studies need to be re-evaluated with accurate data that considers transit

capital. Similarly, some of these studies have used aggregated FDI data, which recent OECD data shows to be incorrect. My findings suggest that institutional arbitrage is important for MNEs. MNEs often use offshore hubs not only for real FDI but also to handle domestic market problems, like capital market issues and legal gaps. The literature on MNEs should pay more attention to the role of offshore incorporation, which has not been explored in detail. This may explain why many studies have faced problems in empirical testing. Although the use of tax havens does not fit well with mainstream International Business theory, which focuses on market, efficiency, and asset-seeking motives, it is a common and important part of MNE activity for those from emerging markets like Brazil, Russia, India and China (BRICs). Future theories need to better incorporate the role of offshore incorporation within existing models.

Ultimately, my findings show that many MNEs use offshore structures to raise capital internationally, solving problems in their domestic capital markets. In the past, accommodating regulations in various countries made this easier. However, recent policy changes and regulatory crackdowns in different regions have disrupted these practices. Major companies, especially in the tech sector, have faced increased scrutiny and regulatory challenges regarding their offshore activities, affecting large financial deals. These deals often depend on complex offshore structures, including SPEs and legal mechanisms to bypass domestic ownership rules. Geopolitical tensions have also led to stricter accountability and disclosure requirements for firms accessing international capital markets. For managers, especially those in the financial sector and investment community working with global firms, as well as executives from these firms looking to enter international markets, it is crucial to understand why offshore incorporation is used and how policies are changing. My results show that MNEs have historically used offshore companies to invest in other countries. However, with increasing regulatory pressures worldwide, they will need to consider new strategies. This could reduce

the outward FDI of MNEs as they face more regulatory scrutiny and limited access to international capital markets.

3.6 Conclusion

Our understanding of the factors driving CIT remains limited. Why do MNEs choose specific jurisdictions for routing FDI? What advantages do these jurisdictions offer, and can institutional arbitrage theory explain such FDI? How does the target country's role influence the selection of CIT jurisdiction? Additionally, what are the impacts of CIT on the measurement and comprehension of MNE activities? These questions have only recently gained attention in IB research. The findings of this chapter offer interesting insights into the understanding of CIT-related FDI, emphasising the importance of accurately identifying foreign subsidiaries used for CIT. Unlike previous research (see above) that often included all foreign subsidiaries from databases like Orbis without differentiation, I identified specific NACE codes associated with CIT activities. For example, Table 2.4 above illustrates that CIT-related subsidiaries are not confined to traditional tax havens but are spread across a diverse range of countries such as Austria, Hong Kong, Luxembourg, Malta, Mauritius, Singapore, and the British Virgin Islands. This widespread occurrence of CIT-related subsidiaries that I have identified, suggests that MNEs strategically use various jurisdictions for CIT activities, that it is not random, potentially to exploit favourable tax regimes and regulatory environments. How might these findings reshape the way scholars conduct firm-level research using Orbis data? By demonstrating that approximately 25% of all MNE foreign subsidiaries are engaged in CIT activities, this study highlights the need for correctly classifying these entities to avoid distorted findings.

For IB researchers, could integrating these insights into mainstream IB theories provide a deeper understanding of MNE strategies, particularly in leveraging specific NACE-coded subsidiaries for CIT? This, in turn, may contribute to more informed policy-making and strategic decision-making within the field, ensuring that future research and analysis accurately reflect the complexities of MNE operations and their impact on global economic activities. By focusing on the specific NACE codes associated with CIT and recognising the global distribution of these activities, we can gain a clearer understanding of the true drivers behind MNE location choices and their strategic use of foreign subsidiaries for CIT purposes. Further, as mentioned above, CIT is often associated with MNEs' tax optimisation strategies, which can result in the erosion of a nation's tax base. Better understanding the specific CIT hubs used by MNEs, as I do here, could aid in formulating policies to address this erosion (Landefeld and Whichard, 2006; Guvenen et al., 2017; Whichard, 2005). This issue is also closely linked to MNE 'escape' responses and institutional arbitrage. Moving operations offshore may weaken the bargaining power of governments relative to businesses, potentially affecting national economies in various ways. MNEs use intricate webs of ownership chains spanning multiple, often offshore, jurisdictions. While this creates challenges for measuring MNE activity, it also has wider implications for the general monitoring and regulation of such corporations.

This chapter created an approach for identifying what types of MNE foreign subsidiaries are used for CIT. This is important because, as identified above, empirical studies using firm-level databases often collect foreign subsidiaries using databases like Orbis. They do so, however, without knowing whether those foreign subsidiaries are actually involved in CIT. This is important because, in such cases, it would be wrong to assume the immediate destination country is the final one. In other words, building upon my earlier chapter using the OECD's

newly available UIC data, I can pinpoint at the firm-level the types of subsidiaries used by MNEs for CIT.

Chapter 4: GUOs and Corporate Inversions

4.1 Introduction

It is understandable that International Business (IB) researchers should want to develop large-scale international cross-country samples of MNEs and their foreign subsidiaries to test IB theory. Within IB studies it has become increasingly popular to use secondary data from firm-level databases like Orbis (Bureau Van Dijk) to do so (Table 3.1; Cerar, 2021). The Orbis database is very attractive for IB scholars as it allows, among things, users to quickly create large-scale samples of MNEs from multiple national jurisdictions to test hypotheses (see Table 3.1 for examples of such studies). MNE sampling is typically done by identifying the jurisdictions of the MNEs' 'global ultimate owner' (hereafter GUO) to specify the MNEs' parent country of origin. Using the GUO, all 'foreign' subsidiaries (i.e. subsidiaries owned outside of the GUO country) can then be automatically identified. However, as Hennart and Sutherland (2022) point out, corporate inversions can sometimes lead MNEs to relocate their GUO's legal domicile, complicating measuring MNE activity. This includes the sampling of MNEs using GUO criteria.

This raises several questions. Are corporate inversions common? If so, do MNEs from certain types of jurisdictions, say emerging markets, have a greater propensity to use inversions? In turn, does using the GUO method of identifying the MNE' parent and in turn its 'foreign' subsidiaries (which in inverted MNEs may actually be domestic ones) lead to sampling errors when using firm-level databases like Orbis? If so, what are the potential remedies, if any?

I begin by discussing how international comparative empirical studies create cross-country MNE parent/foreign subsidiary samples when employing the Orbis database and how

inversions, potentially, complicate this procedure. I then outline my hypotheses, followed by my novel method for identifying the scale and origin of inverted MNEs. I develop a logistic regression model, based on 52,000 plus inverted and non-inverted MNEs from 30 different nations. I model the MNE's choice to invert. In addition, based on the corporate inversions literature, I hypothesise that emerging market MNEs (EMNEs) and larger MNEs (i.e. with more foreign subsidiaries) are more likely to invert. My hypotheses are supported. This suggests systematic differences between inverted and non-inverted MNEs, leading to potential sampling biases in studies using the GUO approach. By way of discussion, I consider these biases and how IB researchers (using Orbis but also other firm-level databases) should amend their MNE sampling approaches going forward.

4.2 Background and Research Questions

4.2.1 Sampling Procedures using Orbis/firm-level databases

Orbis distinguishes between foreign and domestically owned firms and provides the home economy of the ultimate owner, the largest shareholder that is independent, sometimes labelled the 'global ultimate owner'. Most IB studies that use the database identify the origin of an MNE via its GUO (see Table 3.1 for examples). For example, Estrin, Meyer and Pelletier, compare a large EMNE with developed market MNE (DMNE) sample, using this approach. They identify over 1.64 million foreign subsidiaries (Table 3.1) and define "a firm as being foreign owned when the (foreign) ultimate owner holds a direct or indirect participation of at least 50.01% of the stock. If a largest shareholder is not independent, the ultimate owner is traced back again via the largest shareholder until an ultimate owner which is independent is finally identified" (Estrin, Meyer and Pelletier, 2018: 518). They note that the 'dataset allows us to

identify all firms operating in a given host economy owned by firms from any given source country' (Estrin, Meyer and Pelletier, 2018: 518). In another similar typical example, Sanfilipo (2015) samples 2,013 European affiliates of BRIC EMNEs, comparing their productivity with a DMNE sample. Sanfilipo (2015) notes that an 'advantage' of Orbis is that 'it provides full information on the ownership structure of each company, including the degree of domestic and foreign control. This is important in constructing groups with clear-cut definitions of the nationality of foreign affiliates…foreign affiliates are classified according to the nationality of their Global Ultimate Owner (GUO), defined as the corporate entity holding a controlling stake greater than 50.01 per cent' (Sanfilipo, 2015: 6567).

This GUO approach is typical of the studies found in Table 3.1. Jindra and Cantner (2016), for example, also compare EMNEs (from 37 emerging markets) with DMNEs (from 26 developed markets), developing a sample of 32,685 foreign affiliates established in the EU27 countries (between1996 and 2010).[4] Yang and Driffield (2022) sample 19,096 MNEs from 90 countries, comparing EMNEs with DMNEs (for 2008–2016) using Orbis. Andrews and Meyer (2023), exploring host country and country of origin effects on performance, identify 34,708 foreign affiliates owned by 2,518 MNCs from 8 home countries operating in 91 host countries (in the 2010-2020 period), including India. [5]Jones and Temouri (2016), by contrast, focusing on a DMNE only multi-country comparative sample (i.e. an intra DMNE comparative study), use the GUO to identify 14,209 MNEs from 12 OECD countries (from 2002–2010). Jones et al (2023), taking a different focus, compare EMNEs with one another, sampling 6,731 EMNEs (over the 2010–2018 period), again using Orbis. As do Chen, Li and Shapiro (2012) who use

[4] Foreign ownership is defined as 'being a direct shareholder (with a minimum of 10 percent equity/or voting rights) or an ultimate owner (with a minimum of 25 percent indirect ownership)' (Jindra, Hassan and Cantner, 2016: 207).

[5] The eight home countries studied include India (an emerging market) and Canada, Germany, Japan, Korea, Taiwan, the United Kingdom and the United States.

9, 953 EM parents with foreign subsidiaries in high income OECD countries to explore impacts on innovation capability of FDI (Chen, Li and Shapiro, 2012: 202). Contractor et al (2016) sample 3,438 multinational parents from 45 different countries and their 9,280 overseas subsidiaries, looking at the general question of how extent of multinational activity impacts intangible assets (Contractor et al. 2016: 954).

The Orbis database offers researchers the potential to quickly and efficiently build large cross-country samples of MNE parent firms and, in turn, to identify their foreign subsidiaries. The above examples illustrate EMNE/DMNE comparative samples, intra DMNE and intra EMNE comparative samples (Table 3.1). This allows for comparative analyses of such things as MNE location choices and performance impacts, accounting for country-of-origin effects. These empirically focused studies typically sample thousands, if not tens of thousands (and in one case, over a million plus) MNE' foreign subsidiaries. They do so across different geographic and institutional contexts and over different time periods. Panel data is often created. Importantly, however, such studies rely upon the GUO approach to identifying an MNEs country of origin and, in turn, where it owns its 'foreign' subsidiaries. This may appear to provide a 'clear cut definition of the nationality of foreign affiliates' (Sanfilipo, 2015: 6567) and allow researchers 'to identify all firms operating in a given host economy owned by firms from any given source country' (Estrin, Meyer and Pelletier, 2018: 518).

Table 3.1 Examples of Sampling Approaches in International Comparative Studies on MNEs that use the Orbis database

Author(s)	Publication year	Article summary	Journal	Sample size	Home countries included in sample
EMNE versus DMNE Studies					
Estrin, Meyer and Pelletier	2018	Investigates the effects of institutional reforms on firm performance in economies.	Journal of World Business	1,644,226 foreign subsidiaries	Seven developed markets (France, Germany, Spain, Japan, United Kingdom, United States and Canada) and seven emerging markets (Brazil, China, India, Russia, South Africa, Mexico, and Turkey).
Jindra, Hassan and Cantner	2016	Explores the mechanisms through which knowledge transfer from foreign partners fosters innovation in firms from emerging markets.	International Business Review	32,658 parent companies	Developed: EU-15, non-EU, Emerging: EU-12, non-EU (including China, India, Brazil and the U.S.)
Yang and Driffield	2022	Assesses how FDI influences innovation capabilities in firms from emerging markets.	Journal of Business Research	19,096 parent companies	30 countries (including China, India, and the U.S.)
Andrews and Meyer	2023	Explores how MNEs integrate into global value chains and the subsequent effects on their innovation strategies.	Journal of World Business	2518 parent companies	Canada, Germany, India, Japan, Korea, Taiwan, the United Kingdom and the United States
Jones and Temouri	2016	Examines how interactions between multinational enterprises and local firms in emerging markets affect local firms' productivity and growth.	Journal of World Business	14,209 parent companies	Australia, Canada, New Zealand, United Kingdom and United States, Austria, Germany, Japan, Denmark, Finland, Norway and Sweden
Yang, Martins and Driffield	2013	Analyses the determinants of MNE' internationalisation using on firm-specific and institutional factors.	Management International Review	16,835 parent companies	U.S., E.U., France, Germany, Italy, Japan, U.K., and Taiwan
Intra-DMNE Studies					

Jones, Temouri and Cobham	2018	Links the use of Big 4 accountancy firms to increased tax haven subsidiary networks.	Journal of World Business	5,912 MNEs	12 developed countries, including U.S., Norway and Canada
Driffield, Mickiewicz, and Temouri	2016	Explores changes in ownership control of foreign affiliates, considering institutional environments, financial markets, and firm-level characteristics.	Journal of World Business	70,000 parent firms and over 90,000 affiliates	122 home countries and 125 host countries
Delis, Driffield and Temouri	2019	This study examines how political connections affect the internationalisation process of Chinese firms.	Journal of Business Research	3,683 parent companies	14 developed countries, including U.K., Germany and Norway
Intra-EMNE Studies					
Jones et al.,	2023	Discusses how varying institutional environments across countries influence the strategic decisions of global businesses.	Journal of Business Research	6,731 parent companies	40 emerging markets (including China, India and Brazil)
Chen, Li and Shapiro	2012	Investigates how EMNEs benefit from their subsidiaries in developed markets through knowledge transfer and increased R&D.	European Management Journal	493 parent companies	20 different emerging markets, including India, Turkey and Israel.
Gattai, Mechelli and Natale	2017	Explores the relationship between corporate governance mechanisms and the level of accounting conservatism in firms from emerging markets.	International Journal of Emerging Markets	3,401 parent companies	Armenia, Azerbaijan, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia and Ukraine
Sanfilippo	2015	Examines the impact of access to trade finance on firm performance, particularly focusing on firms' export activities and productivity.	International Business Review	2,013 European affiliates	EMNEs from the so-called BRICS countries
General MNE comparative studies					

Kohlhase and Pierk	2020	This research analyses the effectiveness of tax incentives in attracting foreign direct investment to developing countries and its subsequent economic impact.	Journal of International Business Studies	39,496 foreign subsidiaries	21 developed and emerging markets, including the U.S., and Canada and China
Contractor, Dangol, Nuruzzaman, and Raghunath	2020	Examines the impact of regulatory factors on FDI inflows.	International Business Review	3,438 multinational parents and their 9,280 overseas subsidiaries	45 countries (developed and emerging)
Single and dual country studies					
Alon, Elia, and Li	2020	Analyses how governance environment and international experience affect Chinese firms' choice between greenfield investments and M&As.	Journal of International Management	152 EMNEs with 401 subsidiaries	China
Athreye, Saeed and Baloch	2021	The research investigates how institutional factors influence the geographic diversification strategies of firms from emerging markets.	Journal of World Business	510 parent companies	China and India
Athreye, Saeed and Baloch	2023	The article explores the impact of home country institutions on the internationalisation strategies of emerging market multinationals.	Journal of Business Research	394 parent companies	(176 Indian, 218 Chinese)

4.2.2 Corporate Inversions and the relocation of an MNEs' ultimate owner

How do such studies deal with situations in which the GUO has inverted to another jurisdiction, different to the economy from where it originally grew and has the majority of its business activities? To date, this issue has not been raised in any of the IB studies that we know of that use the Orbis database.

Corporate inversions typically involve relocating a company's GUO and (often) legal headquarters to a different country, sometimes with more favourable taxes and often a more favourable institutional/regulatory environment (Buckley et al. 2015). The choice of the GUO location can be influenced by factors such as tax regulations, regulatory environment, access to markets, and political stability, among other things (Col et al 2020). Nonetheless, corporate inversions, regardless of motivation, by definition result in a change in GUO location while maintaining the original shareholders in majority control (Col et al. 2020; Reyes-Peña et al.; 2022). Inversions may, in addition, involve relocation of the GUO to an offshore tax haven and/or financial centre, which may offer additional secrecy to the MNE but complicate their inclusion in MNE sampling procedures.

Kingsoft Corporation Limited, a leading Chinese software and internet service company, is a suitable illustrative example. Originally headquartered and from Beijing, China, the corporate inversion began with the establishment of a holding company, 'Kingsoft Corporation Holdings', in the Cayman Islands. The inversion was to facilitate the company's expansion and to streamline its international business operations. Along with this holding company, it structured

several special purpose entities, in the British Virgin Islands and Hong Kong.[6] The inversion process involved transferring a significant equity stake from Kingsoft's primary operations in China to the new Cayman Islands-based holding company. According to its annual report, it inverted its corporate structure thus:

> ‘On 15 November 2005, the Company was redomiciled to the Cayman Islands under the Company Law (2004 revision) of the Cayman Islands.’
>
> (Kingsoft Corporation Limited, 2022)

Later in 2007, Kingsoft Corporation Limited was listed on the Hong Kong Stock Exchange, a move that was aimed at raising capital for expansion and growth, which it achieved after its listing (in its software and internet services sectors) in both the domestic and international market (S&P Capital IQ, 2023). The inversion, in short, going beyond tax optimisation, was highly beneficial to Kingsoft. Many other Chinese and EMNEs, more generally, have chosen to invert like this (Buckley et al. 2015).

Inversions, particularly to Ireland, are also known to have been common in US MNEs, to the extent that they became a major political issue and saw the rise of numerous restrictive government regulations and laws. Indeed, the first US inversion dates to 1983 (McDermott International) but the scale of inversions grew dramatically after 2014. A well-known and high-profile case involved the US$48 billion merger of Medtronic (US) with Covidien plc (Ireland). An even higher profile merger between Pfizer (US) and Allergan plc (Ireland) in US$160 billion deal was later called off in 2016 owing to political interventions. One of the

[6] Involved in the company's international financial management and operational strategy.

largest hybrid-intellectual property (IP) tax inversions was the US$300 billion acquisition of Apple Inc.'s IP by Apple Ireland in 2015. As with the US, UK based MNEs have been attracted to invert in Ireland. Similarly, Japan's Takeda merged with Irish-based Shire plc (a previous UK inversion to Ireland in 2008). These examples show, that even if the number of inversions is low, the MNEs involved may be very large.

There are a variety of ways in which an MNE can invert. In recent times, for example, inversions via use of "special purpose acquisition companies" (SPACs) have become very common in the US. SPACs provide a cheaper and quicker way of listing a company than going through the conventional IPO process.[7] Most of the firms listed on the US stock markets, between 2020 and 2024, were based around offshore listing vehicles. Lucid Motors, for example, a U.S. electric vehicle manufacturer, went public through a merger with the SPAC Churchill Capital Corp IV in July 2021. This relocated Lucid's GUO to the Cayman Islands. Arrival, an electric vehicle manufacturer originally headquartered in the U.K., merged with the SPAC CIIG Merger Corp in March 2021, relocating its GUO to Luxembourg. Similarly, XP Inc., a major Brazilian brokerage firm, went public through a merger with the SPAC Stone Co in 2019, relocating its GUO to the Cayman Islands.

[7] SPAC-drive inversions, particularly those from U.S. MNEs, include Clarivate Analytics, a U.S. MNE that was originally part of Thomson Reuters, went public through a merger with the SPAC Churchill Capital Corp in 2019. They relocated their headquarters to the U.K, allowing the company to benefit from a more favourable tax regime and regulatory environment. According to Clarivate's CEO, Jerre Stead, "This transaction will enable Clarivate to accelerate our growth strategy and continue to invest in our leading portfolio of data and insights solutions" (Clarivate Press Release, 2020). Similarly, Skillsoft, initially incorporated in the U.S., underwent a corporate inversion by merging with the SPAC Churchill Capital Corp II in June 2021, resulting in the relocation of its GUO to Ireland.

In short, anecdotal evidence points towards many cases of corporate inversion, often involving very large MNEs and from a variety of emerging and developed markets. The process provides various corporate advantages, both institutional and tax related but does entail moving the MNE's GUO. Orbis may appear to provide a 'clear cut definition of the nationality of foreign affiliates' (Sanfilipo, 2015: 6567) and allow researchers 'to identify all firms operating in a given host economy owned by firms from any given source country' (Estrin, Meyer and Pelletier, 2018: 518). In reality, however, this may be complicated by corporate inversions.

4.3 Literature Review and Hypothesis Development

The GUO approach to sampling MNEs does not automatically identify MNEs with a foreign GUO. This raises two immediate questions: are inverted MNEs common? If so, from which home countries are MNEs more prone to undertake corporate inversions? Following from this, for the purposes of better sampling MNEs, do any systematic differences exist between inverted and non-inverted MNEs. If the former systematically differ from latter, excluding such MNEs, as is currently the case (Table 3.1), may introduce sampling biases.

Based on extant literature on corporate inversions, I now outline two hypotheses regarding the types of MNEs that may be more predisposed towards corporate inversions.

4.3.1 Do EMNEs have a greater propensity to invert vis a vis DMNEs?

Some argue inversions are driven primarily by taxation related factors (Reyes-Peña et al.; 2022). However, these studies tend to be single country focused, making it difficult to empirically verify the impact of corporate taxes alone. Col et al. (2020), by contrast, using one of the only cross-country samples of inversions, have recently challenged this 'popular notion', noting 'that 3 of 5 inversions occur in nontax havens and among these, half are in destination countries with higher statutory tax rates than those faced at home' (Col et al. 2020: 167). The motivation for undertaking corporate inversions, therefore, appear to extend beyond reducing corporate tax rates alone (Col et al. 2020).

Inversions, in addition to potentially reducing taxes, can also be a "strategy through which MNEs arbitrage institutional differences" (Robinson Reyes-Peña et al., 2022: 830) They allow EMNEs to circumvent restrictive regulatory and economic environments in their home countries, seeking more favourable conditions that support their international operations and growth ambitions (Cuervo-Cazurra and Genc 2008). Supporting this insight, Buckley et al (2015) highlight the various non-tax related benefits inversions offer EMNEs. Emerging markets, typified by more fragile and volatile institutional environments, may create uncertainty as well as making certain business activities harder to undertake (Karhunen, Ledyaeva and Brouthers, 2022). This place EMNEs at a disadvantage vis a vis their developed-market counterparts. As Luo and Tung (2018) note, so-called 'springboard MNEs' (of which EMNEs are the major subset) may look to engage in both institutional escapism and arbitrage, so as to place themselves on a more equal footing with their DMNE counterparts. Corporate inversions take the MNEs' parent and controlling company away from its domestic base, typically to an offshore tax haven/financial centre, circumventing some of the harmful domestic interference they may face while simultaneously accessing superior institutional market environments (Karhunen, Ledyaeva and Brouthers, 2022; Buckley et al. 2015). Importantly,

they allow EMNEs to better access international financial markets, often through offshore financial centres (OFCs). They do so via foreign listings, access to international bond markets and other financial institutions found in OFCs (Buckley et al. 2015). They may allow EMNEs to access and use international corporate law, allowing for better property rights protection and engagement with international property rights markets (orchestrating further M&As or property rights transactions, for example, offshore). They facilitate EMNEs engagement with advanced business service providers (lawyers, accountants, consultants) that specialise in servicing MNEs (Buckley et al. 2015). Inversions can also have significant impacts on the governance and control mechanisms of an MNE, shareholder rights, and overall control of the company. This creates positive signals to investors, so raising an EMNEs share price, ability to raise capital and longer-term growth (Karhunen, Ledyaeva and Brouthers, 2022). Inversions, in short, can be highly transformative for EMNEs, as illustrated in my earlier Kingsoft example. I hypothesise:

Hypothesis 1*: EMNEs have a greater propensity for corporate inversions than DMNEs*.

4.3.2 Do larger MNEs tend to invert?

Anecdotally, often very large MNEs with extensive foreign subsidiary networks are inverted. Extant research on inversions supports the idea that MNE size is a determinant of inversions. Col et al. (2020), for example, found that firm size was a significant predictor of inversion activity. Hope, Thomas, and Vyas (2011) suggests that larger firms, due to their complex structures and international reach, are more likely to engage in corporate inversions as part of earnings management and strategic global positioning, Similarly, Reyes-Peña et al. (2023) found firm size predicted inversion likelihood: ‘firms that inverted are significantly larger’

(Reyes-Pena et al., 2023:836). Furthermore, Desai and Hines (2002) found that "that firm size significantly affects the propensity to expatriate [i.e. invert]: larger firms are more likely to do so than are smaller firms" (Desai and Hines, 2002:18).

This may be understandable, as managing tax liabilities across multiple jurisdictions may become increasingly burdensome as an MNEs' number of subsidiaries grows. This complexity may incentivise MNEs to seek more favourable tax regimes through corporate inversions, allowing them to consolidate their global tax obligations and to do so under more advantageous conditions (Desai and Hines, 2002; Salaimi, 2021). Larger, and typically more internationally diversified MNEs, in addition, have greater resources to investigate and subsequently orchestrate the inversion process. Going beyond taxes, inversions can be more beneficial to large MNEs that seek access to offshore institutions that allow them to leverage their existing resources. This is noticeable in large EMNEs, many of which leverage the domestic market growth potential to access offshore investors and the supporting advanced business service providers found in jurisdictions popular with inverted MNEs.

In short, the inversion literature suggests larger MNEs are more likely to invert. If this is so, excluding them is more likely to lead to sampling biases when using the GUO approach to creating MNE samples. I thus hypothesise:

Hypothesis 2: *Larger MNEs have a greater propensity towards corporate inversions.*

4.4 Data & Methods

The only previous study attempting to identify a comprehensive cross-country sample of MNEs that have changed to operate under an inverted structure, as noted, is that of by Col et al., (2020). They provide a snapshot of global inversion frequency, country of origin and timings using a 'hand-collected' approach (Col et al. 2020: 165). They focus, however, only on firms from 11 OECD countries, those responsible for the largest share of cross-border M&A activities (i.e. they focus on DMNEs only)[8]. Col et al.'s (2020) approach, which I partially draw from, relied upon firm level data related to changes in the first two digits of a firm's ISIN codes[9]. Such changes, they argue, indicate a change in corporate structure/form, possibly via inversion. Having identified firms with IISIN changes, they then undertook further detailed investigations, using secondary media reporting to confirm if an inversion had taken place. Using this method they identified, as noted, over 600 corporate inversions, as well as the preferred locations for inversions, based on the details of the new ISIN code (which provides the new jurisdiction to which the MNE).

4.4.1 Data and sampling approach

My multi-step method, which draws from the Orbis, CRSP and Compustat – Capital IQ databases, starts by using the most popular inversion jurisdictions identified by Col et al (2020). I employed the Orbis database to identify all MNEs with GUOs in these jurisdictions (see Table 3.5, top row). I focus on all of the popular inversion jurisdictions that Col et al. (2020) identified as being home to multiple inversions (i.e. at least one, namely the Bahamas, Bermuda, Cayman Islands, Cyprus, France, Germany, Ireland, Italy, Japan, Luxembourg, Malta, Marshall Islands, Netherlands, Norway, Panama, Singapore, Spain, Switzerland the U.S. and BVI). I identified

[8] From Australia, Canada, France, Germany, Italy, Netherlands, Spain, Sweden, Switzerland, the United Kingdom, and the United States

[9] They used the SIX Financial Information database.

all GUOs in these jurisdictions that owned at least one foreign subsidiary (based on a 50% plus ownerships share) outside of the inversion jurisdiction. My reasoning here was that inverted companies, as a consequence of moving their GUO, will typically have many foreign subsidiaries (i.e. from their original country of origin, China in Kingsoft's case). Corporate inversions, moreover, result in a change in GUO location while maintaining the original domestic market shareholders in majority control. It follows, therefore, that an inverted MNE will have (a) a large number of (now) 'foreign' subsidiaries within their original domestic market from which they grew and (b) that the majority shareholders will be from the same jurisdiction as these foreign subsidiaries. For example, most of Kingsoft's 'foreign' subsidiaries are in China and it has Chinese nationals as its major shareholders. My initial screening approach therefore identified the nationality of the major shareholders, followed by checking to see whether that MNE had a significant number of its foreign subsidiaries in the country of the shareholders.

Following this initial screening using Orbis, I followed up with by using both the CRSP and Compustat – Capital IQ databases, copying Col et al.s' (2020) method, to identify if any of these MNEs had undertaken a change in the first 2-digits of their ISIN numbers (in the period of 1994-2023). This enabled us to verify that the MNEs had indeed inverted, comprising 1,326 inverted MNEs from 45 countries. However, 15 of these home countries that only had 1 corporate inversion (12 emerging; 3 developed). This left 31 home countries (15 emerging; 16 developed). Likewise, with the host countries, there were 14 countries that only had 1 corporate inversion. This left 20 host destinations, 13 of which were tax havens (Table 3.1). (To note: Table 3.1 shows 1,297 inversions, as I chose to include only those countries with more than one inversion, Table 3.5). Finally, I carried out additional manual checks, which included reviewing annual reports and, for unlisted entities, using Orbis to investigate their ownership

structures and activities, with a focus on detailed business history, to check if they had indeed inverted.

Importantly, my approach allowed us to accurately identify the original home country (i.e. China in the Kingsoft case), determined by the original ISIN code location, location of the now inverted MNE's foreign (originally domestic) subsidiaries, as well as shareholders. To test my hypotheses, moreover, I required a comparator group of non-inverted MNEs. I took this MNE comparator group directly from the 30 countries of origin that I identified using the above process. I adopted the standard MNE sampling approach (i.e. that used in studies highlighted in Table 1). This involves (a) selecting firms with GUOs in the 31 home countries (b) that own at least one foreign subsidiary (50% plus share) in a country different to that of the GUO. Carrying out these steps created a sample of 51,431 non-inverted MNEs and 1,326 inverted MNEs.

4.4.2 Model specification

To test for differences between inverted and non-inverted MNEs, I use a logistic model, applying the maximum likelihood method, using robust standard errors clustered by year and industry to test my two hypotheses (Fischer, 1973) [10]:

Probability($Inversion_{it}$=1; Non $inversion_{it}$=0)=f($GDPPC_{it}$, CGS_{it}, $MSMNE_{it}$, $SSMNE_{it}$, $VLSMNE_{it}$, $GUOTH_{it}$, $CTDIFF_{it}$, $EMNE_{it}$, NFS_{it}, Country $Dummies_{it}$+ ε_{it})

[10] $P(i) = \frac{1}{1+e^{-\beta X(i)}}$ $P(i)$ is the probability of parent firms undertaking an inversion. X(i) is the independent variables and β is the coefficients.

Where i denotes the parent firms and t represent the investment year.

4.4.2.1 Dependent variable

My binary dependent variable indicates whether an MNE has chosen to undertake a corporate inversion or not (one for inverted MNEs, zero otherwise).

4.4.2.2 Explanatory variables

The variable EMNE designates whether an MNEs' home country is in an emerging market, based on IMF/OECD country classification schema (H1). I use the number of foreign subsidiaries as a proxy for a firm's multinational presence and size (H2). This choice is grounded in the IB literature and aligns with established empirical practices. A MNE is defined as a firm that owns and controls value-adding activities in at least one country outside its home country (Dunning & Lundan, 2008). The number of foreign subsidiaries directly reflects the geographic dispersion of an MNE's operations, which is a core dimension of multinationality (Sullivan, 1994; Hennart, 2007). Firms with a greater number of foreign subsidiaries are considered to have a more extensive multinational presence, as they operate across a wider range of jurisdictions.

In addition to multinational presence, the number of foreign subsidiaries is also a proxy for firm size. Larger firms typically have more resources and capabilities to establish and manage a greater number of subsidiaries across multiple countries (Buckley & Casson, 1976; Rugman, 1981). This measure captures not only the scale of a firm's operations but also its organisational complexity. Prior studies have consistently used the number of subsidiaries as an indicator of firm size, particularly in the context of MNEs (e.g., Nachum, 2003; Berry, 2006). Larger MNEs, as proxied by the number of foreign subsidiaries, are more likely to engage in inversions due

to their greater exposure to international tax regimes and their ability to navigate the legal and regulatory complexities associated with such corporate restructuring (Hennart & Sutherland, 2022).

The use of this proxy is further supported by its practical availability in firm-level databases like Orbis, making it a widely adopted measure in IB research (Cerar, 2021). While the number of foreign subsidiaries does not account for the scale or economic significance of each subsidiary, this limitation is mitigated by its alignment with the research objectives and its consistency with prior literature. By employing this measure, the study ensures comparability with existing studies while addressing the specific research questions related to the sampling biases arising from corporate inversions.

4.4.2.3 Control variables

My model is relatively parsimonious (Table 3.2), as I am primarily interested in the general question of whether inverted MNEs systematically differ from non-inverted MNEs. I include several firm specific (i.e. firm, industry, size) and home country specific (i.e. tax rate) control variables. Orbis classifies corporations by size—small, medium, and large—based on a combination of financial and operational metrics. Small firms are typically defined as having fewer than 50 employees, revenue below €10 million, and total assets under €10 million. Medium firms generally have between 50 and 250 employees, revenue between €10 million and €50 million, and total assets between €10 million and €43 million. Large firms are characterized by more than 250 employees, revenue above €50 million, and total assets exceeding €43 million. These thresholds align with the European Union's definition of small and medium-sized enterprises (SMEs) and are adjusted by Orbis to ensure global consistency. For the purposes of this study, the focus is on large firms, as they are more likely to engage in

multinational activities and corporate inversions. In addition, I incorporate country of origin dummies, home country GDP per capita, corporate tax difference (home less host) and institutional quality (home less host) to identify any institutional arbitrage motives. Dharmapala and Hines (2009) found that tax havens provide strategic fiscal benefits crucial in inversion decision-making processes. I include a dummy variable, one when a tax haven acts as an inversion host, zero otherwise (based on Jones and Temouri's (2016) approach). A dummy high-tech sector variable is included, given its unique regulatory challenges and intellectual property considerations (Branstetter and Foley, 2010) (Table 3.2).

Table 3.2 Variables, descriptions, and data sources

Variable	Proxy	Data Source
GDP per Capita	Host-country gross domestic product per capita.	World Bank

Corporate Group Size	Number of entities under the corporate umbrella.	Orbis
Firm Size	Categorical variable for firm size (Small, Medium, Very Large).	Orbis
GUO Tax Haven	Dummy variable for if the firm is in a tax haven.	Financial Secrecy Index
Corporate Tax Difference (Home less Host)	The difference between corporate tax rates. Country of origin less host country.	OECD, PwC
EMNE (H1)	Dummy variable for if the MNE is from an emerging market.	MSCI, IMF/OECD country classification schema
Number of Foreign Subsidiaries (H2)	Number of foreign subsidiaries a firm has.	Orbis
Country Dummies	Dummy variables for each country to account for country-specific effects (e.g., Brazil, Canada, China, India, etc.)	Study-specific (Logistic model)
Year Dummies	Dummy variables for each year to account for year-specific effects.	Study-specific (Logistic model)
Institutional Quality	Host-country institutional quality, measured by the Worldwide Governance Indicators (WGI)	World Bank

4.4.3 Results

Tables 3.3 and 3.4 provide a summary of the variable descriptive statistics. Pairwise correlations suggest multicollinearity is not a significant concern. Table 3.5 illustrates the distribution of corporate inversions by home country and preferred inversion host countries, based on the aforementioned novel approach for identifying inverted MNEs. Emerging markets like China and Brazil had a large number of inversions, predominantly orchestrated from tax havens such as Bermuda and the Cayman Islands (Table 3.5), as did some developed markets, notably the US.

The logistic regression results (Table 3.6, Model 1) indicate a positive and significant coefficient for EMNEs ($\beta = 2.831$, $p < 0.01$). Hypothesis 1 is therefore supported (Table 3.6). Hypothesis 2, that larger MNEs with a greater number of foreign subsidiaries are more likely

to engage in corporate inversions, is also supported. As regards to control variables of interest, while very large firms are significantly more likely to invert (Table 5, Model 1: $\beta = 2.025$, $p < 0.01$; Model 3: $\beta = 1.794$, $p < 0.01$), small firms have a negative and significant likelihood of inversion (Model 1: $\beta = -1.279$, $p < 0.01$; Model 3: $\beta = -1.674$, $p < 0.01$). Interestingly, model 2 (Table 5, Model 2) reveals that the differential in institutional quality between the home country and the host country is negatively related to the likelihood of corporate inversions ($\beta = -0.082$, $p < 0.01$). Lower institutional quality in the home country relative to the host country is therefore associated with a greater propensity to invert, in line with findings of Col et al. (2020) and institutional arbitrage motives. The United States, China, India and Brazil feature prominently as home countries with high absolute numbers of inversions (Table 5) as well as greater propensities for inversion (vis a vis other MNEs from their home countries), highlighting the strategic corporate behaviours in diverse economic contexts.

Table 3.3 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Corporate Inversion	52598	.025	.157	0	1
GDP per capita	52598	51571.018	25261.794	2410.888	108729.19
Number of Foreign Subsidiaries	52598	2.634	10.731	0	517
Corporate Group Size	52598	73.877	1507.649	0	88040
Firm Size	52598	2.974	.922	1	4
GUO Tax Haven	52598	.043	.203	0	1
Corporate Tax Difference (home less host)	52598	.898	4.163	-25.122	39.162
EMNE	52598	.166	.372	0	1
Institutional Quality (home less host)	52398	1.206	7.484	-71.078	76.576
Home/Origin Country	52598	32.221	14.823	1	46

Table 3.4 Pairwise Correlation

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) Corporate Inversion	1.000									
(2) GDP per capita	-0.054	1.000								
(3) Number of Foreign Subsidiaries	0.090	-0.017	1.000							
(4) Corporate Group Size	0.000	0.009	0.053	1.000						
(5) Firm Size	0.142	-0.033	0.152	0.019	1.000					
(6) GUO Tax Haven	0.732	-0.046	0.067	0.007	0.103	1.000				
(7) Corporate Tax Difference (home less host)	0.703	-0.084	0.045	0.014	0.097	0.812	1.000			
(8) EMNE	0.189	-0.684	0.014	-0.009	0.123	0.127	0.172	1.000		
(9) Institutional Quality (home less host)	-0.497	0.269	-0.049	0.093	-0.096	-0.482	-0.510	-0.307	1.000	
(10) Home/Origin Country	-0.140	0.443	-0.002	-0.003	-0.142	-0.083	-0.114	-0.473	0.271	1.000

Table 3.5: Home country, absolute number of inversions, inversion location and number of foreign subsidiaries of inverted MNEs.

		Inversion Location																			
Home Country	No of Foreign Subsidiaries	Bahamas	Bermuda	Cayman Islands	Cyprus	France	Germany	Ireland	Italy	Japan	Luxembourg	Malta	Marshall Islands	Netherlands	Norway	Panama	Singapore	Spain	Switzerland	U.S.	BVI	**Number of Inversions**
Emerging Markets																						
China	17,297	0	89	449	0	0	0	0	0	0	0	0	0	0	0	0	18	0	2	0	16	574
Brazil	320	1	4	7	0	5	3	0	7	4	12	2	0	9	2	0	1	4	1	7	0	69
Taiwan	166	0	1	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
BVI	228	0	5	14	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	23
Malaysia	170	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	21
India	207	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	14	0	1	2	0	19
Russia	283	0	0	0	15	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	18
Cyprus	128	0	0	1	0	0	0	1	0	0	0	1	1	0	0	0	0	0	1	0	1	6
South Africa	131	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	5
Cayman Islands	109	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	4
Luxembourg	167	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	0	4
Indonesia	31	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	3
Saudi Arabia	384	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
Bermuda	15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
Ukraine	28	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	19,850	1	105	505	19	5	3	5	7	4	14	3	2	10	2	1	57	4	13	9	21	778
Developed Markets																						
Hong Kong	3,133	0	77	132	0	0	0	0	0	0	0	0	0	0	0	0	7	0	1	0	5	222
United States	15,737	1	32	46	5	0	0	33	0	0	6	1	4	0	0	3	5	0	10	0	5	151
United Kingdom	1,147	0	11	13	4	0	0	6	0	0	3	0	1	0	0	0	4	0	7	0	13	62
Germany	863	0	0	1	0	0	0	1	0	0	4	0	0	0	0	0	1	0	9	0	0	16
Norway	323	0	5	1	3	0	0	0	0	0	1	0	2	0	0	0	0	0	1	0	0	13
Australia	151	0	5	1	0	0	0	2	0	0	0	0	0	0	0	0	3	0	0	0	2	13
Canada	342	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	10
Sweden	304	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0	6
Singapore	53	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Italy	355	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	0	4
Netherlands	96	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	4
Switzerland	32	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	4
France	54	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
Israel	53	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Japan	21	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Belgium	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
Total	22,711	2	137	208	12	0	0	42	0	0	21	1	8	0	0	4	21	0	39	0	27	519
	42,561	3	242	713	31	5	3	47	7	4	35	4	10	10	2	5	78	4	52	9	48	**1297**

Table 3.6 Logistic regression: determinations of corporate inversions

	(1) Corporate Inversion	(2) Corporate Inversion	(3) Corporate Inversion
GDP per capita	0***	0**	0***
	(0)	(0)	(0)
Corporate group size	-.002***	-.002**	-.001
	(0)	(.001)	(0)
Medium firm size	.704**	.613	.273
	(.281)	(.478)	(.432)
Small firm size	-1.279***	-1.278***	-1.674***
	(.289)	(.46)	(.424)
Very large firm size	2.025***	2.076***	1.794***
	(.177)	(.252)	(.242)
GUO tax haven	6.203***	8.033***	9.57***
	(.205)	(1.123)	(1.267)
Corporate tax diff (home less host)	.053***	.132***	.109***
	(.007)	(.016)	(.012)
EMNE (H1)	2.831***		
	(.176)		
Number of foreign subsidiaries (H2)	.018***	.021***	.018***
	(.002)	(.004)	(.003)
Industry dummies	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes
Brazil		9.781***	12.495***
		(1.203)	(1.353)
Canada		2.755***	2.632***
		(.603)	(.552)
China		-.607	3.647***
		(.897)	(.409)
India		5.788***	8.49***
		(1.218)	(1.165)
Indonesia		-1.696	2.303**
		(1.055)	(.909)
Malaysia		2**	4.286***
		(.967)	(.763)
Norway		2.11***	1.423**
		(.597)	(.569)
Russia		-1.468	3.292***
		(1.087)	(.725)
South Africa		-1.678*	1.792***
		(.868)	(.666)
Spain		-3.78***	-1.838*
		(1.124)	(1.104)
Ukraine		-1.025	3.051***
		(1.297)	(1.084)
U.S.		1.828***	2.535***
		(.41)	(.412)
_cons	-10.099***	-13.824***	-15.83***
	(.305)	(1.224)	(1.372)
Observations	52598	52110	52235
Pseudo R^2	.804	.868	.854

Robust standard errors are in parentheses
**** p<.01, ** p<.05, * p<.1*

4.5 Discussion

4.5.1 MNE sampling challenges when using Orbis

To date, as noted, only one systematic large-scale empirical study of international inversion activity has been undertaken (Col et al., 2020). This focused, however, only on inversions in 12 OECD countries. My novel way of identifying inverted MNEs allowed me to undertake econometric modelling of the inversion choice (to invert or not?) across 30 emerging and developed market economies, comparing the choice to invert in both inverted and non-inverted MNEs. This facilitates insights into not only why MNEs may invert but also, my focus here, whether empirical studies using firm-level databases face MNE sampling challenges. I start by commenting on the sampling challenge before outlining additional contributions to the inversion literature.

4.5.2 Sampling Issues in International comparative studies

4.5.2.1 EMNEs versus DMNEs

With the rise of EMNEs, one type of IB study that has become popular involves EMNE/DMNE comparisons (see Table 3.1). Estrin, Meyer, and Pelletier (2018), as noted, focus on the comparative location choices of EMNEs/DMNEs in the OECD using data from Orbis on 1,644,226 foreign subsidiaries. Among the EMNE' foreign subsidiaries sampled, however, are those with GUOs from China, Brazil, China, India, Russia, South Africa, Mexico, and Turkey. EMNEs from some of these countries are far more prone to inversion (i.e. China, Brazil, see Table 3.5) than others. Similarly, Jindra, Hassan and Cantner (2016) compare EMNE/DMNE

location choices in Europe using the same GUO approach. They compare EMNE foreign subsidiaries in Europe from 37 emerging markets, including China, Brazil, Malaysia, Indonesia, India, Russia, Ukraine, Taiwan and South Africa (with DMNE subsidiaries from 26 developed markets). Again, my results show these emerging markets have high absolute levels of inversions and also a greater propensity of inversion than other countries (Table 6). Yang and Driffield (2022) look at 19,096 MNEs from 90 countries, including China and India, considering impacts of FDI on profitability (return on sales) and productivity. Finally, Andrews and Meyer (2023) are also interested in EMNE/DMNE differences, also considering return on sales as a dependent variable. They look MNEs from Canada, Germany, India, Japan, Korea, Taiwan, UK, and the US. Several of both the emerging and developed markets, again, are identified with high absolute levels (and higher relative propensities) for inversion. The hypotheses testing in these types of IB studies, it should be noted, typically use an EMNE dummy as an explanatory variable.[11] My supported first hypothesis, however, shows that in general the propensity towards inversion is higher in EMNEs. A potential problem all these studies therefore face is the exclusion, during their sampling procedures, of many EMNE' foreign subsidiaries. This is because the GUOs of these EMNEs can often be found not in their real country of origin – but in the country of inversion.

While the numbers of EMNE inversions, some might argue, are small (in the context of the large sample sizes being generated using Orbis), my results also show that larger MNEs are more likely to invert (i.e. thousands of foreign subsidiaries owned by these parents are likely being overlooked). Indeed, the 1,000 or so inverted MNEs I identified had a total of 42,479 foreign subsidiaries, with 22,708 foreign subs attributable to inverted DMNEs and 19,771 to

[11] They investigate, for example, whether the coefficients on the determinants of location choice differ between the two groups of MNEs (Jindra, Hassan and Cantner, 2016).

inverted EMNEs. China alone had 574 inversions, Brazil 69, Malaysia 21, India 19 and Russia 18 (Table 5) but these EMNEs controlled many thousands of foreign subsidiaries.

4.5.2.2 Intra DMNE and intra EMNE international cross-country comparisons

As well as EMNE/DMNE comparative studies, empirical studies using Orbis have compared DMNEs from different developed markets (i.e. they make intra DMNE country of origin comparisons) (Table 3.1). These types of studies, as with DMNE/EMNE comparisons, might also consider checking if their samples include nations hosting MNEs (a) with relatively higher prevalence for inversions (b) and higher absolute levels of inversions. For intra DMNE studies, samples incorporating countries with greater propensity for inversion (like the US, Canada and Norway; Table 5) and higher absolute levels potentially hold greater sampling biases. Jones, Temouri and Cobham (2018), for example, create an intra-DMNE sample of 5,912 MNEs (between 2005–2013). Their panel dataset of 24,781 observations from 12 countries. This includes, however, the US, Norway and Canada – all with significantly higher likelihood of MNE inversions (Table 3.6). Driffield, Mickiewicz and Temouri (2016), by contrast, develop a sample of 122 home countries and 125 host countries to explore changes in foreign affiliates' ownership (covering around 70,000 parent firms and over 90,000 affiliates). Given the broader range and scale of home country sampling, relative sampling errors might be reduced. Somewhere in between these two studies, Dellis, Driffield, and Temouri (2019) studied 3,683 parent companies from the 14 developed countries, including the UK, Germany and Italy and the Netherlands (between 2006–2013). They only include one country, Norway, which I found to have a higher propensity for MNE inversions. Nonetheless, they include a number of countries with higher absolute levels of inversions. Their sample therefore still potentially excludes inverted MNEs originating from Germany (14), France (3), the UK (62), Italy (4),

Netherlands (4) and Norway (13) (i.e. around 100 MNEs). Many of these excluded inverted MNEs are likely to be large, making it difficult to know exactly what impacts their exclusion may have on theory testing using current sampling procedures.

In intra EMNE comparative studies (Table 3.1), the relatively high absolute numbers and propensity for inversions make sampling likely to be more problematic than in intra DMNE studies. China and Brazil, for example stand out as cases where the absolute level of inversions is high. Jones et al. (2023), for example, investigate the influence of institutional environments on 6,731 parent companies from 40 emerging markets. This includes China, India, and Brazil. Similarly, Chen, Li, and Shapiro (2012) focus on knowledge transfer in 493 parent companies from 20 emerging markets, again including the BRIC countries.

4.5.2.3 General MNE comparative studies

Some other studies do not explicitly compare EMNEs with DMNEs, but nonetheless incorporate large samples of both EMNE/DMNE foreign subsidiaries to explore different country of origin effects. Kohlhase and Pierk (2020), for example, use Orbis to examine the impact of worldwide and territorialised tax systems (i.e. country or origin policy effects) on the effective tax rate paid by MNE' foreign subsidiaries found in 19 European countries. The GUO foreign parents of these European subsidiaries originate from 58 home countries, creating 39,496 foreign subsidiary–year observations in their panel (including Chinese). Contractor et al (2020) sample 3,438 multinational parents from 45 countries and their 9,280 overseas subsidiaries, looking at the general question of how extent of multinational activity impacts intangible assets (Contractor et al. 2016: 954). Driffield, Mickiewicz and Temouri (2016) use MNEs from 122 home countries and 125 host countries to explore changes in foreign affiliates'

ownership, incorporating around 70,000 parent firms and over 90,000 affiliates. These types of studies involve at least one or more home country with (a) high absolute levels of inversions (b) high relative propensity to invert (i.e. China, US, Canada, India). Many MNEs, again, will not enter their models owing to the sampling processes they use. In these cases, a number of larger MNEs will be excluded from their analyses and systematic biases potentially introduced.

4.5.2.4 Single and dual country studies

Some empirical studies develop samples using Orbis that are focused on MNEs from a single country. If the country in question has a high prevalence of inversions (i.e. China), care is required if the GUO sampling procedure is used. For example, Alon, Elia, and Li (2020) examine 152 parent companies from China, based on GUO sampling criteria. Many of the most successful, larger MNEs (Tencent, Alibaba, for example), however, are incorporated in the Cayman Islands and listed offshore). These MNEs are likely larger and different in other ways (i.e. are non-state owned) to MNEs incorporated onshore. Similarly, studies that compare MNEs from only two countries with each other, require consideration of inversions. Abbass, Saeed, and Baloch (2021), for example, analyse 510 parent companies from China and India, focusing on the influence of home country institutions. They do not adjust their sampling to incorporate inverted MNEs from either of these home countries.

4.5.3 How to tackle the sampling issue?

I have argued above that some types of IB cross-country comparative empirical studies are more prone to sampling error than others. How can these types of studies deal with this

sampling challenge? In my methods section I outlined an approach for identifying inverted MNEs. It is possible to use this approach to incorporate MNEs with inverted GUOs. This involves first identifying jurisdictions in which inversions are common (i.e., The Cayman Islands) using the findings of Col et al. (2020). It is then possible to screen for MNEs with subsidiaries in the same location as the major shareholders. Finally, using CRSP and Compustat - Capital IQ, changes in ISIN numbers can then be checked/tracked, thereby accurately capturing shifts in domicile or incorporation country codes. This approach, I believe, is a relatively efficient and accurate way of identifying inversions. For example, it allowed us to quickly identify 500 plus inverted Chinese MNEs. These can then be incorporated in samples using the offshore GUOs of the domestic MNEs.

Orbis also allows for filtering by 'headquarters' and some have used this approach to create MNE samples. Delis, Driffield, and Temouri (2019), for example, sampled 3,683 MNEs with headquarters in 14 European countries. Yang, Martins, and Driffield (2013), moreover, used data from MNEs headquartered in 46 different countries. Is using headquarters a viable alternative? In the inverted MNEs in my sample (1,297), I found that only 781 (60%) reported the location of their headquarters in Orbis. The absence of headquarter reporting in Orbis is particularly significant, moreover, for countries like China (139 of 574 inverted MNEs) and the U.S. (106 of 151 inverted MNEs). In addition, my sample showed that all 781 inverted firms had moved their headquarters after inversion, with the Cayman Islands (460) and Bermuda (166) accounting for 80% of these relocations. The sampling issue I identify therefore extends to the headquarters location and unfortunately cannot be used as an easy get-around.

4.6 Conclusion

It is understandable that IB researchers should want to develop large cross- country samples of MNEs to test IB theories using firm-level databases like Orbis. Indeed, using firm-level data has numerous advantages when compared to using some other types of data, such as aggregated FDI data (Hennart and Sutherland, 2022). MNE samples that reach into the hundreds of thousands, or even millions of foreign subsidiaries, are impressive and have great potential to advance IB research. I have argued, however, that an additional degree of care may be required when developing MNE samples when using the Orbis database. This is because corporate inversions are not uncommon, and they are typically found in MNEs owning more foreign subsidiaries and which originate from emerging markets. Some specific countries, moreover, have comparatively high absolute numbers of inverted MNEs with a greater relative propensity for inversions (i.e. China, Brazil, US). Excluding inverted MNEs when sampling these home countries, I argued, can potentially lead to sampling biases because of systematic differences between inverted and non-inverted MNEs. I have outlined the types of studies that may be vulnerable to these sampling issues and proposed an approach for creating more inclusive sampling procedures.

My paper only considers the inversion hotspots identified by Col et al. (2020) for identifying inverted MNEs. In reality, there may be more jurisdictions that they have not identified which also host inversions and are commonly used by MNEs. Future research may help identify if this is the case. By doing so, we will also be able to then better incorporate such inverted MNEs during the sampling stage of the research process. I have also not touched upon the question of how inversions have evolved over time and implications for longitudinal sampling procedures when using panel data sets. Future research might explore these areas further.

Chapter 5: Discussion and Conclusion

In this thesis, I have undertaken a comprehensive and critical evaluation of the methodologies employed to measure MNEs' activities, with a particular focus on the phenomena of CIT and corporate inversions. The research utilises advanced empirical methodologies and extensive datasets, including the OECD/IMF UIC data and firm-level data from the Bureau van Dijk's Orbis database, to provide a nuanced analysis of CIT and its broader implications for understanding MNE strategies. By leveraging these sophisticated datasets, this research addresses the limitations of traditional aggregated FDI data, which often fails to capture the complexity of MNE operations and leads to a skewed understanding of global investment patterns.

The scope of the analysis in this thesis is broad, encompassing both macro-level (aggregate data) and micro-level (firm-specific data) perspectives to provide a comprehensive understanding of MNE behaviours related to CIT and corporate inversions. At the macro level, the use of the OECD/IMF UIC data allows for an examination of how CIT-related FDI flows through various jurisdictions, identifying significant patterns and determinants of CIT. At the micro level, the firm-specific analysis using the Orbis database uncovers the roles of SPEs and investment holding companies in facilitating CIT, offering detailed insights into the strategic use of conduit jurisdictions by MNEs. This dual-level approach strengthens the analysis by providing a holistic view of the phenomena, bridging the gap between high-level FDI trends and the underlying firm behaviours that drive these trends. The results of this thesis address significant gaps in existing International Business literature by demonstrating the systematic nature of CIT, which is influenced by various institutional factors, and by highlighting the prevalence and strategic motivations behind corporate inversions. These findings challenge

existing paradigms and call for a methodological shift in how International Business scholars measure and interpret MNE activities, advocating for the use of more refined data analysis techniques that can accurately reflect the complexities of global investment flows.

A key part of IB strategy is the creation of foreign affiliates under long-term managerial control, commonly known as FDI. This activity by MNEs is closely monitored by national authorities following international standards set by the OECD and the IMF. Despite its importance, focusing strictly on immediate bilateral FDI flows can lead to distortions and inaccuracies (OECD, 2015). Research in IB and International Economics has traditionally used aggregated FDI data to measure the activities of MNEs (Beugelsdijk et al., 2010). However, the increasing prevalence and scale of CIT has further challenged the effectiveness of traditional FDI data for accurately capturing MNE activities (Hennart and Sutherland, 2022). Hence, in the first chapter of this dissertation, a seemingly straightforward yet important research question is examined: Why do certain types of MNEs (e.g., from institutionally fragile countries), exhibit higher levels of CIT?

There is limited literature explaining why CIT occurs and why certain MNEs are more prone to CIT compared to others. My research extends this inquiry beyond single-country studies to include MNEs from various countries with weaker institutions. The findings confirm that MNEs from these types of countries exhibit higher levels of CIT compared to enterprises from more developed nations. Several factors likely contribute to this, including regulatory quality, political stability, financial freedom, and legal protections. Engaging in CIT through offshore hubs has historically been a strategic response for MNEs from countries with weaker institutions. These firms often face capital market deficits, unstable legal institutions, and unfavourable taxation environments at home. As highlighted in my analysis, MNEs from

institutionally weaker markets (e.g., emerging economies) are more likely to engage in CIT as a form of institutional escapism, seeking stronger regulatory environments abroad to mitigate risks associated with domestic uncertainties. These findings align with the broader concept of institutional arbitrage, where MNEs use more favourable conditions in host countries to mitigate domestic shortcomings. The findings from Chapter 2, which focused on the aggregate-level determinants of CIT, revealed that MNEs from institutionally weaker markets (e.g., emerging economies) are more likely to engage in CIT as a form of institutional escapism, seeking stronger regulatory environments abroad to mitigate risks associated with domestic uncertainties. This aligns with Hypothesis 1 (H1), which posits that MNEs from institutionally fragile countries engage in CIT to escape unfavourable domestic conditions and leverage more favourable regulatory environments in host countries.

The findings confirm that MNEs from institutionally weaker markets (e.g., emerging economies) are more likely to engage in CIT as a form of institutional escapism. The variable for domestic regulatory quality is significant and positive, indicating that these firms leverage stronger regulatory environments abroad to mitigate risks associated with domestic uncertainties. This aligns with the expectation that MNEs from institutionally fragile countries are more likely to engage in CIT to escape unfavourable domestic condition. This aligns with the expectation that MNEs from well-regulated environments are more likely to engage in CIT. Differences in the rule of law between home and host countries are significant and positive, suggesting that larger disparities in legal frameworks drive higher levels of CIT. This supports the hypothesis that MNEs are more likely to engage in CIT when there is a significant difference in the rule of law between the domestic country and the host country. Political stability also plays a crucial role. The significant negative relationship between domestic political stability and CIT indicates that MNEs from politically unstable countries are more

likely to engage in CIT to mitigate risks associated with domestic uncertainties. This strategic use of legal and bureaucratic efficiencies in host countries allows MNEs to navigate complex international regulatory landscapes more effectively.

The regression models presented in above demonstrate several important relationships between country-level variables and the propensity for CIT among MNEs. The results show a significant positive relationship between domestic regulatory quality and CIT, suggesting that higher regulatory quality in a country encourages MNEs to engage in CIT, leveraging more favourable regulatory environments abroad. This finding is consistent with the concept of institutional arbitrage, where MNEs seek to exploit institutional differences between countries to optimise their operations. The negative and significant relationship observed between domestic financial freedom and CIT indicates that MNEs from countries with greater financial freedom are less likely to engage in CIT. This could be due to the availability of more opportunities and fewer constraints on capital raising domestically. Additionally, the analysis reveals a significant negative relationship between political stability and CIT, suggesting that MNEs from politically unstable countries are more likely to engage in CIT as a strategy to mitigate risks associated with domestic uncertainties. Further, the differences in regulatory quality, rule of law, and bureaucratic quality between the home and host countries significantly influence CIT. Larger gaps in these institutional factors drive higher levels of CIT, as MNEs seek to benefit from more robust legal protections and business environments in host countries.

The findings of this chapter contribute to several strands of IB literature. Firstly, the concept of institutional arbitrage is expanded by demonstrating that MNEs from institutionally weaker markets (e.g., emerging economies) use CIT as a strategy to escape unfavourable domestic conditions and exploit differences in institutional quality between home and host countries.

This aligns with the broader theories posited by Luo and Tung (2018), who suggest that MNEs from emerging markets engage in strategic behaviour to overcome home country disadvantages. Secondly, this research highlights significant limitations in traditional FDI data used in IB studies. Aggregated FDI data often fails to account for the distorting effects of CIT, particularly the routing of investments through intermediary jurisdictions by MNEs from institutionally fragile countries. Secondly, this research highlights significant limitations in traditional FDI data used in IB studies. Aggregated FDI data often fails to account for the distorting effects of CIT. For instance, China's immediate FDI to the US was reported as 10 billion in 2014, while the ultimate FDI was nearly three times higher at 10 billion in 2014, while the ultimate FDI was nearly three times higher at 29 billion. This discrepancy underscores the need for more refined data to accurately measure MNE activities and their economic impact. Moreover, the chapter addresses the methodological critiques by Beugelsdijk et al. (2010) and Hennart and Sutherland (2022), who argue that current empirical approaches in IB often overlook the complexities introduced by CIT. This research advocates for integrating new data sources and methodologies to provide a more accurate and comprehensive picture of MNE behaviour.

The IB literature teaches us very little about CIT, and it is clear that we are often "shooting in the dark." While there are some ideas from the literature on emerging market multinationals (EMNEs) and institutional arbitrage, the empirical validation is scant. Hennart and Sutherland (2022) highlight the empirical challenges in IB data, specifically pointing to a recent Journal of International Business Studies (JIBS) paper by Cuervo-Cazurra et al. (2018), which underscores the problematic nature of using traditional FDI data to measure MNE activities. Traditional FDI data is fraught with biases, such as geographic biases, where FDI to and from OFCs is overestimated, distorting the true geographic distribution of FDI flows. The industrial composition of FDI is also biased, as investments in Special Purpose Entities (SPEs) are

typically recorded under ‘business services,’ even if the companies further down the chain of ownership belong to different industries. The volume of FDI is greatly distorted by transactions through OFCs, leading to exaggerated outward FDI from some countries, a phenomenon known as ‘round-tripping.’ These distortions make it difficult to draw accurate inferences about the economic activity and industrial composition of FDI. Additional problems with using FDI as an indicator of MNE activity include the focus on financial resources rather than economic value. Traditional FDI data records only equity and loans originating from the parent and does not take local financing into account, leading to undervaluation of economic activity in host countries, especially in less developed regions. Furthermore, the use of net FDI flows can obscure the underlying activities of MNEs, and inconsistent estimates of FDI stock data across countries make cross-country comparisons problematic.

The findings of this thesis prompt a deeper reflection on certain aspects of the institutional arbitrage theory and the strategic behaviour of MNEs, particularly those from emerging markets (Luo & Tung, 2018; Hennart & Sutherland, 2022). These theories often suggest that the primary motivations of EMNEs are focused on exploiting differences in institutional quality between home and host countries to optimise their global operations. However, it could be beneficial to also consider the potential implications of CIT strategies on the broader investment landscape. Traditional views on institutional arbitrage emphasize the need for EMNEs to navigate unfavourable home country conditions by leveraging more favourable regulatory environments abroad. Yet, the strategic use of CIT by MNEs introduces additional complexities that challenge these simplistic assumptions. For instance, the high CIT indices observed in countries like Brazil, China, and India indicate that EMNEs are not merely seeking to mitigate home country disadvantages but are actively using intermediary jurisdictions to enhance their strategic positioning.

Hennart and Sutherland (2022) highlight that while institutional arbitrage provides a useful framework, the empirical challenges in accurately measuring MNE activities due to CIT distortions suggest that traditional FDI data might oversimplify the dynamics at play. The evidence presented in Chapter One shows a significant prevalence of CIT strategies among EMNEs, but the broader implications of these practices, particularly their impact on long-term value creation and competitive advantage, remain somewhat unclear. In Chapter Three, therefore, an in-depth analysis was conducted to identify the potential underlying factors that drive CIT and to explore how these factors influence the strategic behaviour of MNEs at the firm level. The regression models demonstrate that institutional factors such as regulatory quality, political stability, and differences in legal frameworks between home and host countries play significant roles in shaping CIT strategies. These findings suggest that MNEs are not only responding to institutional deficiencies in their home countries but are also strategically positioning themselves to leverage favourable conditions in multiple jurisdictions. The high CIT indices for EMNEs underscore the importance of considering how these firms use CIT to navigate complex international regulatory landscapes. This perspective extends the traditional understanding of institutional arbitrage by highlighting the sophisticated strategies employed by MNEs to optimise their global operations. Moreover, the methodological challenges identified in this research advocate for a shift towards more refined empirical approaches that can better capture the nuanced behaviours of MNEs, ultimately contributing to more accurate and comprehensive evaluations of their activities.

In essence, the results of the empirical analysis in Chapter Two not only validate the significant influence of CIT on global FDI flows but also underscore the methodological shortcomings of traditional data sources in capturing the complexities of MNE activities. By building on the

foundational studies of Borga and Caliandro (2018) and Casella (2019), this research extends their methodologies to include ultimate investors, thereby providing a clearer understanding of how MNEs strategically route their FDI through intermediary jurisdictions. This analysis reveals that CIT is not merely a peripheral issue but a central component in the global investment strategies of MNEs, particularly those from institutionally fragile countries. These findings trigger the core explorations of Chapter Three: Which types of firms and jurisdictions are predominantly used by MNEs for CIT-related activities? Utilising firm-level data from the Orbis database, this chapter identifies the specific offshore locations frequently employed by MNEs for CIT and delineates the types of businesses used to facilitate these investments. This approach addresses the significant gap in existing IB research where foreign subsidiaries involved in CIT are often misclassified as genuine FDI. The insights gained from this detailed firm-level analysis are crucial for improving the precision of MNE activity measurements in empirical studies that rely on databases like Orbis.

Chapter Three builds on the foundational frameworks established by earlier studies, particularly those by Borga and Caliandro (2018) and Casella (2019). This chapter extends their methodologies by incorporating data on ultimate investors, thereby addressing the complexities of CIT and corporate inversions in MNE activities. Chapter Three utilises firm-level data from the Orbis database, a comprehensive resource that allows for the creation of large-scale samples of MNEs across various national jurisdictions. This database is particularly valuable for IB research due to its extensive coverage and the ability to quickly compile large samples of MNE parent firms and their foreign subsidiaries. The sample size for this chapter used over 450,000 foreign subsidiaries. The use of advanced statistical techniques, including logit modelling, enables a precise analysis of the factors influencing CIT and the differentiation between genuine value-adding subsidiaries and those primarily involved in CIT. Ultimately,

firm-level databases such as Orbis are becoming more readily available, and while their broad coverage provides scholars and those interested in MNE activity with the opportunity to significantly improve their understanding of MNEs, this research shows that they are subject to some of the same problems that affect the use of FDI flow and stock data, which the literature has not always recognized. My contribution is to therefore identify which types of companies are (a) more likely to be SPEs and (b) which countries are common hosts. By identifying firms in specific industries that are more likely to be related to the formation of SPEs created for the purpose of investment holding and onward investment, IB scholars can look to exclude these particular types of foreign subsidiaries (based on industry codes) as well as identify which countries are likely to be hubs for CIT.

The findings in Chapter Three indicate a significant prevalence of CIT activities among MNEs, particularly those from countries with weaker institutional frameworks. The data reveals that certain jurisdictions, such as the Netherlands, Luxembourg, Hong Kong, and the Cayman Islands, are frequently used by MNEs as conduits for CIT. These findings challenge the traditional understanding of FDI flows, highlighting the strategic use of intermediary jurisdictions by MNEs to optimise their global investment portfolios. For instance, my results indicate that specific countries are more likely to be used as transit hubs by MNEs for CIT. Expectedly, the Netherlands is a significant hub for CIT among MNEs. However, the data also reveals unexpected hubs, such as Austria and Malta. Additionally, Hong Kong and Singapore are identified as major centres for establishing offshore investment holding companies. The analysis shows that certain industries are more frequently utilized by MNEs for CIT-related FDI. The NACE code 6420 (Activities of holding companies) is significant and positive across 51 industries. At the 1% significance level, it is positively significant across 8 industries. Among the various industries analysed, the category of ‘Agents specialized in the sale of other

particular products' (NACE code 4618) stands out with a frequency count of 1,358, indicating its importance in the activities of multinational enterprises (MNEs) engaged in capital in transit (CIT). Additionally, 'Activities of head offices' (NACE code 7010) shows a significant positive impact at the 1% level in 51 different industries. This suggests that MNEs often use head offices to manage and coordinate their CIT activities.

The analysis in Chapter Three, which provides extensive firm-level data statistical evidence, significantly broadens the existing perspectives on IB theory. By demonstrating the prevalence and impact of CIT on global FDI flows, the research highlights the limitations of traditional data sources and the need for more sophisticated empirical methods. This extensive statistical evidence supports the call for a methodological shift in IB research, advocating for the use of advanced datasets and refined analytical techniques to better capture the complexities of MNE activities. Further, prior research by Sutherland, Hennart, and Anderson (2019) exposed significant issues in the treatment of foreign subsidiaries in offshore jurisdictions within academic papers focused on CMNE activity. These papers often failed to recognize the nature of these subsidiaries as SPEs or CIT-related investments, inaccurately treating them as 'real' investments. Consequently, these types of misclassifications distort the estimation of MNE activity and undermine the reliability of research findings. For instance, a study conducted by Liang, Ren, and Sun (2014) aimed to assess the degree of globalization for Chinese MNEs but inadvertently included ratios heavily influenced by SPEs. Such misclassifications provide distorted measures of globalisation due to the significant number of investment-holding companies incorporated offshore, particularly for CIT purposes. Chapter Three's findings provide compelling evidence that CIT is a strategic tool used by MNEs to manage their global investment portfolios. The prevalence of CIT among MNEs from institutionally fragile countries suggests that these entities use intermediary jurisdictions to mitigate risks and

optimise their operations. This strategic behaviour has significant implications for both academic research and policy formulation, as it underscores the need for more accurate measurements of FDI and a deeper understanding of MNE strategies.

The findings of this research emphasize the critical importance of accurate data analysis in IB research. Specifically, the study highlights the necessity of distinguishing between genuine value-adding foreign subsidiaries and those primarily involved in CIT. This distinction is crucial for ensuring the reliability and validity of empirical studies using databases like Orbis. By identifying specific types of businesses and jurisdictions likely involved in CIT, scholars can refine their methodologies and improve the accuracy of MNE activity measurements. Chapter Three demonstrates that significant portions of what is traditionally classified as FDI are, in fact, CIT-related. This aligns with the arguments of Hennart and Sutherland (2020) and Nielsen et al. (2020), who advocate for methodological innovations to better capture the complexities of global investment flows. The study's insights into MNEs' strategic behaviours underscore the importance of adopting advanced datasets and empirical methods that accurately reflect the realities of MNE activities. The research conducted in Chapter Three fills a significant gap in the literature by providing a detailed analysis of CIT activities at the firm level. Previous studies often overlooked CIT's role in distorting traditional FDI measurements, leading to a skewed understanding of MNE activities (Beugelsdijk et al., 2010; Cerar et al., 2021). By identifying which companies are more likely to be Special Purpose Entities (SPEs) and which countries host these activities, this study provides new insights into MNE strategies.

The aggregated data in Chapter Two points towards extensive capital transit. To undertake CIT, MNEs must create transit-related subsidiaries. This chapter explores the types of foreign subsidiaries MNEs use for CIT. Many IB scholars now employ firm-level databases,

particularly Orbis, to measure MNE activity (Estrin, Meyer, and Pelletier, 2018; Cui and Jiang, 2012; Liang et al., 2014; Gaur et al., 2018; Ascani et al., 2023). However, these studies struggle to disentangle genuine value-adding foreign subsidiaries from SPE/CIT-related subsidiaries, creating significant sampling issues. For example, studies that consider Chinese subsidiaries in the Netherlands as serving that market alone are likely incorrect. The OECD data shows that 90% of FDI from China to the Netherlands is SPE-related and typically moves to other jurisdictions. Similarly, this research identified Luxembourg and Singapore as important hubs for CIT. These findings challenge traditional views and require a re-evaluation of how MNE activities are measured. The results of Chapter Three are important for IB scholars and the future of IB literature for several reasons. Firstly, they provide a methodological blueprint for identifying and excluding CIT-related entities from empirical studies, thus improving the accuracy of MNE activity measurements. This is particularly important for studies using large datasets like Orbis, where misclassifying CIT-related subsidiaries as genuine FDI is a common risk.

Secondly, identifying specific NACE codes associated with CIT activities, such as 6420 (Activities of holding companies) and 4618 (Agents specialized in the sale of other particular products), offers a practical tool for researchers to filter out CIT-related subsidiaries. This can significantly enhance the quality of empirical research by ensuring only genuine value-adding activities are included in the analysis. Further, the findings highlight the importance of considering the institutional context of both home and host countries in MNE research. By showing that CIT is more prevalent among MNEs from institutionally fragile countries, this research underscores the role of institutional arbitrage in MNE strategies. This insight is valuable for developing more sophisticated theories that better capture the strategic complexities of global investment flows.

The research broadens the understanding of global investment management by revealing that CIT is not confined to traditional tax havens but also occurs in countries like Malaysia. This insight encourages researchers to look beyond conventional tax haven jurisdictions to capture the full scope of MNE activities. Without a clear hypothesis or understanding of the distinction between real subsidiaries and SPEs, samples generated from databases like Orbis could be incorrect, potentially treating significant portions of investments as standard FDI without considering their SPE-related nature. Ultimately, the contributions of this research lie in its ability to refine the methodologies used in IB research, providing a more accurate and nuanced understanding of MNE activities. This has significant implications for future studies, encouraging scholars to adopt more rigorous analytical techniques and consider the broader institutional context in their analyses. By doing so, this research paves the way for a more comprehensive and accurate body of knowledge in the field of International Business, enriching both academic inquiry and policy formulation.

Chapter Four builds on the challenges identified in Chapter Three regarding the use of firm-level datasets to measure MNE activity, with a particular focus on GUO and corporate inversions. The chapter underscores the significant methodological issues that arise from relying on GUO to determine an MNE's origin, especially when MNEs engage in corporate inversions, relocating their GUO's legal domicile. This practice can lead to substantial sampling errors, as demonstrated by the case of Chinese firms incorporating in the Cayman Islands, which may not be correctly identified using the GUO procedure. This misalignment between an MNE's GUO and its actual country of origin complicates the accurate measurement of MNE activities and ownership structures. The methodology employed in this chapter involved developing a logistic regression model based on over 52,000 MNEs from 30 countries,

comparing inverted and non-inverted MNEs. This extensive sample size enhances the robustness and reliability of the findings. Our novel method for identifying corporate inversions, verified through changes in ISIN numbers and other indicators, resulted in a sample of 1,326 inverted MNEs and 51,431 non-inverted MNEs. This methodological innovation is crucial as it allows for a more accurate identification of MNE origins and ownership structures, providing a clearer picture of MNE activities.

The findings indicate that corporate inversions are indeed common and significantly impact the measurement and sampling of MNE activity. Specifically, MNEs from emerging markets like China and Brazil show a higher propensity for inversion, which can lead to substantial sampling biases if not properly accounted for. The logistic regression model confirmed that larger MNEs, which control thousands of foreign subsidiaries, are more likely to invert. This underscores the need for more sophisticated sampling methods to accurately reflect the true nature of MNE activities. The analysis in Chapter Three, using extensive firm-level data, broadens the existing perspectives on IB theory by providing detailed statistical evidence on the prevalence and characteristics of corporate inversions. This evidence highlights the potential biases introduced by traditional GUO sampling approaches and calls for methodological innovations to enhance the accuracy of empirical research in international business. The contributions of Chapter Four are manifold. Firstly, it provides a more nuanced understanding of MNE strategies, particularly in the context of corporate inversions, challenging existing paradigms in IB research. By revealing systematic differences between inverted and non-inverted MNEs, the study shows that traditional methods may fail to capture the complexity of MNE activities accurately. Secondly, the chapter offers practical implications for policymakers and business practitioners by highlighting the need for refined data analysis techniques. This, in turn, enhances the validity of theoretical and empirical studies

in international business, contributing to a more comprehensive understanding of global investment flows and MNE strategies.

The statistical evidence provided by the firm-level data in Chapter Three not only broadens theoretical perspectives but also underscores the importance of addressing the methodological challenges posed by corporate inversions. The findings advocate for a shift in sampling procedures, urging IB researchers to incorporate methods for identifying and including inverted MNEs in their samples. This approach ensures more accurate and representative samples, ultimately leading to better-informed conclusions and more robust theoretical contributions. Moreover, the chapter's findings have significant implications for empirical research in international business. By demonstrating that corporate inversions are not random but rather systematic, the study highlights the need for IB scholars to develop more comprehensive and inclusive sampling techniques. This methodological innovation is essential for advancing both theoretical and empirical research in international business, ensuring that future studies can more accurately capture the complexities of MNE behaviour and global investment flows. Further, Chapter Four emphasises the critical importance of refining data analysis techniques and methodological approaches to accurately measure MNE activities. By addressing the biases introduced by corporate inversions, the study contributes to a more comprehensive understanding of MNE strategies and their impact on global investment flows. These insights are valuable for both academic research and practical applications in the field of international business, offering a clearer and more accurate view of the complexities of MNE behaviour.

5.2 Conclusion

The primary objective of this thesis was to critically assess the methodologies used to measure the activities of MNEs, with particular emphasis on the role of CIT related FDI. This research has demonstrated that traditional methodologies relying on secondary data are insufficient in capturing the full complexity of MNE operations. By employing advanced empirical methods and utilising comprehensive datasets such as the OECD/IMF UIC data and firm-level data from the Orbis database, this study has provided new insights into CIT and its broader implications for understanding MNE strategies. One of the significant findings of this thesis is the prevalence of CIT among MNEs from countries with weaker institutional frameworks. This discovery is crucial for comprehending MNE activity. From a policy perspective, deeper insights into CIT are essential for a better grasp of MNE investment strategies. Effective analysis of MNEs necessitates a thorough understanding of the data used to measure their activities at both aggregated and firm levels. CIT is often linked to tax optimisation strategies by MNEs, which can erode a nation's tax base. Understanding the specific CIT hubs utilised by MNEs can aid in formulating policies to address this issue. CIT is intricately connected to MNE 'escape' responses and institutional arbitrage. Offshore operations can diminish the bargaining power of governments relative to businesses, potentially impacting national economies in various ways. MNEs often employ complex ownership structures that span multiple, often offshore, jurisdictions. This complexity presents challenges for measuring MNE activity and has broader implications for monitoring and regulating such corporations. The methodologies proposed in this thesis, which combine firm-level with UIC data, can enhance the understanding of key transit hubs for MNEs, including country-specific preferences for different types of MNEs, potentially leading to more effective regulation.

This thesis also examines why MNEs choose specific jurisdictions for routing FDI, exploring the advantages these jurisdictions offer and the role of institutional arbitrage in such decisions. The findings highlight the importance of accurately identifying foreign subsidiaries used for CIT. Unlike previous research that often included all foreign subsidiaries from databases like Orbis without differentiation, this study pinpointed specific NACE codes associated with CIT activities. The research reveals that CIT-related subsidiaries are not limited to traditional tax havens but are distributed across various countries, including Austria, Hong Kong, Luxembourg, Malta, Mauritius, Singapore, and the British Virgin Islands. For IB researchers, incorporating these insights into mainstream theories can deepen the understanding of MNE strategies, particularly in leveraging specific NACE-coded subsidiaries for CIT. This can lead to more informed policy-making and strategic decisions within the field, ensuring that future research and analyses accurately reflect the complexities of MNE operations and their impact on global economic activities. Focusing on the specific NACE codes associated with CIT and recognizing their global distribution provides a clearer understanding of the drivers behind MNE location choices and their strategic use of foreign subsidiaries for CIT purposes. The thesis also addresses the issue of corporate inversions and their impact on sampling procedures in IB research. Corporate inversions, where an MNE's ultimate owner re-domiciles to another country, pose significant challenges for current sampling approaches. The findings suggest that excluding inverted MNEs from research samples can introduce biases, affecting the validity of IB studies. A systematic approach for identifying and including inverted MNEs in research samples is proposed, improving the reliability of cross-country comparative studies.

5.3 Implications

The findings of this thesis hold substantial implications for academic research, policymaking, and managerial practices within the field of IB. By critically examining CIT, SPEs and corporate inversions, this research contributes to a more nuanced understanding of MNE financial structuring, regulatory arbitrage, and the implications for empirical studies relying on firm-level data.

5.3.1 Academic Implications: Redefining MNE Research Methodologies

This thesis challenges traditional methodologies in IB research by demonstrating the significant distortion caused by CIT-related FDI and inverted MNEs in empirical analyses. The reliance on databases such as Orbis and the OECD/IMF UIC dataset without careful differentiation between genuine value-adding foreign subsidiaries and financial conduit entities has led to systematic biases in IB literature. By identifying specific NACE codes commonly associated with CIT and SPEs, this study urges researchers to refine their empirical approaches, moving beyond aggregated FDI statistics towards granular, firm-level assessments that better distinguish between real economic activity and financial structuring. Future research should explore the ultimate destination of CIT, examining whether capital merely circulates within tax-efficient hubs or ultimately flows towards productive, value-adding FDI. Additionally, the role of SPE-related subsidiaries warrants further investigation, particularly the extent to which investment holding firms and conduit structures act as intermediaries for genuine FDI, as opposed to merely serving tax optimisation and financial arbitrage purposes. Beyond tax considerations, future studies could also investigate how firms leverage CIT for raising capital efficiently, hedging currency risk, or accessing superior financial markets. Comparative

institutional characteristics of major SPE-hosting jurisdictions, such as Austria, Hong Kong, Luxembourg, Malta, Mauritius, and Singapore, should also be examined to determine whether these locations offer institutional advantages beyond tax benefits, such as better corporate governance and legal protections. By addressing these questions, IB research can develop a more holistic framework for evaluating MNE financial behaviour, bridging the gap between traditional FDI theories and contemporary corporate financial strategies.

5.3.2 Policy Implications: Addressing Tax Base Erosion and Regulatory Gaps

From a policy perspective, the strong link between CIT and MNE tax optimisation strategies highlights critical concerns regarding global tax base erosion. The strategic use of offshore financial centres, corporate inversions, and intermediary holding companies enables MNEs to minimise tax liabilities, often shifting profits without significant changes in real economic activity. Policymakers must adopt granular regulatory measures that specifically target the most common CIT hubs used by MNEs. Initiatives such as the OECD's Base Erosion and Profit Shifting (BEPS) framework provide a foundation, but stronger enforcement mechanisms are required to trace and tax capital flows effectively. Countries with fragile legal systems and weak regulatory oversight are often exploited for CIT-related FDI. Strengthening rule of law, financial transparency, and corporate governance regulations can reduce the attractiveness of these jurisdictions as financial conduits. Additionally, increasing transparency in MNE ownership structures is essential, as many corporate inversions and CIT mechanisms rely on opaque corporate ownership networks. Mandating beneficial ownership disclosure, standardising financial reporting for cross-border subsidiaries, and promoting automatic exchange of tax information between countries would curb these practices. Given the inherently transnational nature of CIT, international coordination is essential. Establishing

uniform tax treatment of offshore profits, standardising reporting requirements for foreign subsidiaries, and implementing coordinated anti-tax haven regulations would ensure a more level playing field for global firms. Furthermore, institutions such as the IMF, OECD, and UNCTAD should differentiate between value-adding FDI and financial FDI to provide more accurate insights into global capital movements.

5.3.3 Managerial Implications: Strategic Considerations for MNEs

For corporate managers, the insights from this research are crucial for navigating regulatory changes and optimising global financial strategies. MNEs need to balance tax efficiency, financial flexibility, and compliance risks when structuring international investments. Many MNEs route capital through OFCs not just for tax purposes but also to access deeper financial markets, reduce regulatory constraints, and optimise currency exchange risks. Corporate financial officers should assess whether such strategies create long-term shareholder value or expose the firm to regulatory scrutiny. Given the increasing scrutiny of CIT structures by global regulators, firms must weigh the potential reputational and legal risks of aggressive tax optimisation strategies against the benefits of financial arbitrage. Recent high-profile cases, such as Apple's Ireland tax structure and Medtronic's inversion to Ireland, have shown how government interventions can disrupt corporate tax strategies. With initiatives like the OECD's Pillar Two global minimum tax, firms need to anticipate how future regulatory changes may impact their profit-shifting and capital-routing strategies. Building adaptive financial models that can respond to regulatory shifts will be critical for sustaining long-term operational efficiency. Additionally, the study highlights that SPE-hosting jurisdictions, such as Austria, Hong Kong, Luxembourg, Malta, Mauritius, and Singapore, offer varied institutional benefits beyond tax incentives, including access to capital markets, legal protections, and corporate

governance frameworks. Managers must conduct a holistic evaluation of these jurisdictions beyond tax efficiency to determine their strategic relevance to business operations.

5.3.4 Broader Theoretical and Practical Implications

The insights from this research extend beyond traditional IB studies, calling for an interdisciplinary approach that integrates perspectives from finance, law, international political economy, and development studies. Future research should examine the relationship between CIT and value-adding investments, exploring whether CIT-related subsidiaries can eventually transition into operational entities or remain primarily passive holding firms. Additionally, the dynamic evolution of financial hubs warrants further investigation, particularly whether emerging markets will develop alternative CIT hubs, potentially shifting the global tax avoidance landscape. A systematic comparison of traditional tax havens, such as Bermuda, the Cayman Islands, and Panama, with SPE-hosting jurisdictions like Luxembourg, Hong Kong, and Singapore, would provide valuable insights into the institutional and financial advantages offered by these locations.

5.4 Limitations and Future Studies

While this thesis has made significant contributions to understanding the complexities of measuring MNE activities, several limitations must be acknowledged. These limitations not only highlight the challenges inherent in the current methodologies but also provide a roadmap for future research to refine and expand upon the findings presented in this study.

5.4.1 Limitations

The reliance on advanced datasets such as the OECD/IMF UIC data and firm-level data from the Orbis database, while innovative, presents certain constraints. These datasets, although comprehensive, may still contain biases and limitations that affect the accuracy of the findings. For instance, geographic biases can arise due to the overestimation of FDI to and from offshore financial centres (OFCs), which distorts the true geographic distribution of FDI flows. Industrial composition biases also pose challenges, as FDI in Special Purpose Entities (SPEs) is typically recorded under 'business services,' obscuring the actual industrial activities of these entities. Furthermore, volume biases significantly distort the overall volume of FDI due to practices such as 'round-tripping,' which exaggerates outward FDI from certain countries. Additional issues arise from using FDI data as an indicator of MNE activity. Traditional FDI data often focus on equity and loans originating from the parent company, neglecting local financing, which leads to an undervaluation of economic activity in host countries, particularly in less developed regions. The emphasis on financial resources rather than economic value further complicates accurate assessments, as labour productivity varies across countries and industries. The use of net FDI flows can obscure underlying MNE activities, and inconsistent estimation methods across countries hinder cross-country comparisons. These limitations underscore the need for more refined methodologies and data sources to accurately capture the complexities of MNE operations.

5.4.2 Future Research Directions

To address these limitations, future studies should consider several recommendations. First, to reduce volume and geographic biases, researchers should utilise the OECD's data on FDI by

ultimate owner and instrument, as well as estimates from Damgaard et al. (2019) on FDI by ultimate owner. The estimates by Borga and Callandré (2018) on transit capital undertaken outside SPEs are also valuable for mitigating biases in FDI measurements. To address industrial composition biases, researchers should account for the broader distribution of ownership chains across industries, ensuring that the classification of FDI reflects the true economic activities of MNEs. For volume biases, distinguishing between immediate and ultimate investor data is crucial, as it provides a more accurate representation of capital flows. Moreover, FDI data should be supplemented with firm-level data to estimate locally raised funds and to account for differing rates of productivity across countries and industries. The use of specific disaggregated data depending on the research context can enhance the accuracy of studies. Establishing appropriate conversion factors between different estimation methods using sample countries that provide consistent data can address issues related to inconsistent FDI stock data. These methodological refinements will enable researchers to better capture the nuances of MNE activities and provide more reliable insights into global investment flows.

Future research should also delve deeper into the reasons why MNEs from specific countries engage in CIT and the strategic advantages these jurisdictions offer. For instance, why do certain countries, such as Austria, Hong Kong, Luxembourg, Malta, Mauritius, Singapore, and the British Virgin Islands, emerge as prominent hubs for SPEs and CIT-related activities? Are these jurisdictions chosen solely for their tax advantages, or do they offer broader institutional benefits, such as robust legal frameworks, access to capital markets, and political stability? A comparative analysis of these jurisdictions with traditional tax havens, such as Bermuda, the Cayman Islands, and Panama, could provide valuable insights into the institutional characteristics that make certain locations more attractive for CIT-related activities.

Further exploration of the global distribution of CIT-related subsidiaries and the specific NACE codes associated with these activities can provide a clearer understanding of MNE location choices. For example, why are certain industries, such as 'Activities of holding companies' (NACE code 6420) and 'Agents specialised in the sale of other particular products' (NACE code 4618), more frequently associated with CIT? Investigating the relationship between CIT-related subsidiaries and value-adding foreign subsidiaries is another critical area for future research. Can CIT-related subsidiaries eventually transition into operational entities, or do they primarily remain passive holding firms? Addressing these questions will help bridge the gap between financial structuring and real economic activity in MNE operations.

Additionally, future studies should investigate the financial purposes of MNE activities beyond tax considerations. For instance, how do MNEs leverage CIT for raising capital at cost-effective locations, transferring capital to jurisdictions with better regulatory environments, or managing currency risks? Understanding these strategic motivations will provide a more comprehensive view of MNE financial behaviour and its implications for global investment flows. The evolution of corporate inversions over time and their implications for longitudinal sampling procedures also warrant further investigation. How have corporate inversions evolved in response to changing regulatory environments, and what are their long-term implications for MNE strategies? Exploring these dynamics will offer valuable insights for empirical studies using panel datasets and contribute to a more nuanced understanding of MNE behaviour.

Finally, future research should examine the broader implications of CIT for global economic development. For example, what are the long-term effects of CIT on host and home countries, particularly in terms of economic growth, income inequality, and institutional development?

How do CIT-related activities influence the global distribution of capital and the competitiveness of different regions? Addressing these questions will require an interdisciplinary approach that integrates perspectives from finance, law, international political economy, and development studies.

While this thesis has laid a robust foundation for understanding CIT and its impact on measuring MNE activities, ongoing research is essential to refine methodologies, address existing limitations, and enhance the accuracy of global investment flow measurements. By adopting these improved approaches, scholars and policymakers can better navigate the complexities of MNE operations and develop strategies that promote transparent and equitable international business practices. The findings of this study not only highlight the need for methodological innovations but also open new avenues for future research that can deepen our understanding of MNE strategies and their implications for the global economy.

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