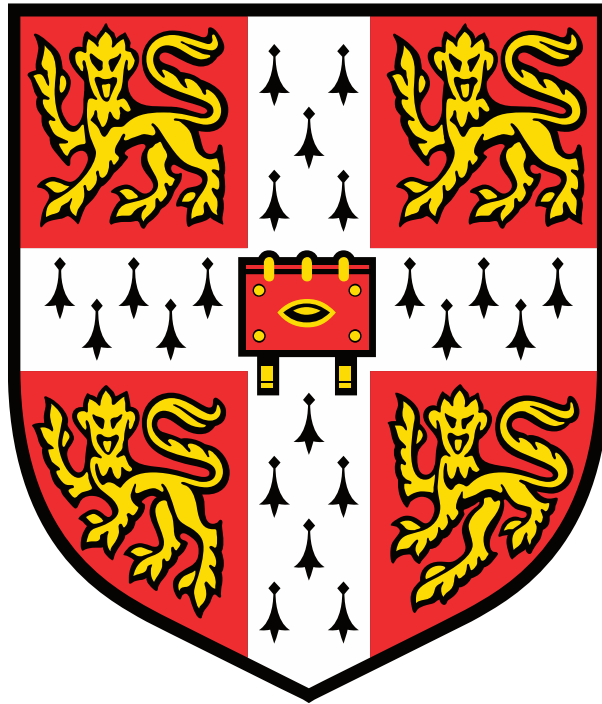


Innovative development finance: A critical analysis



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This thesis is submitted for the degree of Doctor of Philosophy
October 2022

Preface

Some of the results presented in this thesis have been published as journal articles. The first paper, published in *Economic Geography*, is entitled “Innovative development finance? Vaccine bonds and the hidden costs of financialisation”. This was published with my supervisor, Professor Emma Mawdsley. The second paper is published in *Environment and Planning A: Economy and Space* and entitled “Follow the money”. I have specified the relevant sections in the text.

This thesis is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared in the preface and specified in the text.

It is not substantially the same as any work that has already been submitted before for any degree or other qualification except as declared in the preface and specified in the text.

It does not exceed the prescribed word limit for the Earth Sciences and Geography Degree Committee.

Innovative development finance: A critical analysis

Sarah Hughes

Abstract

This PhD investigates innovative development finance, a celebrated trend in development, arguing that, while there is potential, there are also important economic and political costs. Innovative development finance, which has emerged since the millennium, is situated at the intersection of the turn to private finance in development and the financialisation of development. This PhD develops and adopts a follow the money methodology, using critical financial analysis, to analyse three emblematic case studies of innovative development finance: the International Finance Facility for Immunisation, the Caribbean Catastrophe Risk Insurance Facility, and The Currency Exchange. This PhD argues that innovative development finance initiatives make three core development claims: to leverage private finance, manage risk, and create markets. Conceptually, these interventions represent financial solutions to genuine development challenges. Following the money contributes a detailed empirical understanding of the economic and political consequences of the financialisation of development. In contrast to its core claims, innovative development finance fundamentally relies on public finance with no aid additionality, manages risk in a limited way and creates additional financial risks, supports existing financial markets, and is expensive with significant private profit opportunities. Politically, innovative development finance interventions represent technical financial solutions, which I suggest can be understood through the concept of 'rendering financial?', and are ruled by financial experts. The consequences are to de-politicise, financialise, and limit political control and accountability in development. The implications of these findings are significant. In the light of the economic and political costs of the financialisation of development, this PhD also touches on alternatives which deliver many of the same benefits with fewer costs.

Acknowledgements

I would like to thank Emma Mawdsley, who has been an outstanding supervisor. Thank you for your insightful and valuable comments, which have developed and significantly contributed to my research project; for your generous time and effort; and for all your support both academically and beyond over the three years. It has been such a joy to discuss ideas with you in supervisions and get to work with you in collaborations on projects beyond the PhD. You have hugely contributed to the PhD being a positive experience and, above all, I am grateful to have made a good friend.

I would also like to thank Frances Brill for her constant support throughout the PhD. Thank you for discussing ideas at any and all times, from circling Hobson's Park with Pupsy to the Tour du Mont Blanc, via a chairlift in a snow blizzard; for your helpful comments, generous time, and enthusiasm for reviewing work; and for many words of wisdom on navigating academia. Thank you also for all the fun along the way over the three years, which I not only cherish but also played a major part in the project's accomplishment, including, of course, getting Oslo, who hasn't once forgotten to remind me when it's time to get outside.

I would also like to thank Charlotte Lemanski and Carolina Alves for their valuable comments and generous time, especially for their contribution and effort as my first-year advisory committee. Thank you also to Steven Monahan, who introduced me to the wealth of information which financial statement analysis can reveal.

Finally, I would like to thank Morag McLure, Peter Hughes, and Thomas Hughes-McLure. First, for all that came before this PhD and, second, for your wide-ranging support over the three PhD years. Thank you to Morag and Peter for taking a genuine interest, for exchanging ideas, and providing useful input on the research; for your trusty belief in me; and your time to take nice breaks from work together. Also, specifically, thank you to both of you for sending me many interesting and relevant articles, often making me smile by sharing the same ones. Thank you to Thomas for your help from the beginning at the application stage; for leading the way to geography; for interesting, thoughtful, and insightful discussions over the years; and for keeping us company in Cambridge during the long first lockdown.

This research has been supported by the UKRI Economic and Social Research Council, through PhD award ES/P000738/1.

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Acronyms

ADB	Asian Development Bank
AFD	Agence Française de Développement (French development agency)
AfDB	African Development Bank
AIDS	Acquired immunodeficiency syndrome
AIIB	Asian Infrastructure Investment Bank
AMCs	Advanced Market Commitments
ARC	African Risk Capacity
BIO	Belgian Investment Company for Developing Countries (DFI)
BMGF	The Bill and Melinda Gates Foundation
CARICOM	Caribbean Community
CCCCC	Caribbean Community Climate Change Centre
CCRIF	Caribbean Catastrophe Risk Insurance Facility
CDB	Caribbean Development Bank
CDEMA	Caribbean Disaster Emergency Management Agency
CEA	California Earthquake Authority
CEO	Chief Executive Officer
CIMH	Caribbean Institute for Meteorology and Hydrology
COFIDES	Compania Espanola de Financiacion del Desarrollo (DFI)
COO	Chief Operating Officer
COP	Conference of the Parties
DAC	Development Assistance Committee (OECD)
DBSA	Development Bank of Southern Africa
DDT	Dichlorodiphenyltrichloroethane
DEG	Deutsche Investitions- und Entwicklungsgesellschaft (DFI)
DESA	Department of Economic and Social Affairs (UN)
DFI	Development Finance Institution
DfID	Department for International Development (UK)
DRIP	Disaster Risk Insurance Platform
DRM	Disaster risk management
EBRD	European Bank for Reconstruction and Development
ECA	Economics of Climate Adaptation (CCRIF study)
ECOSOC	Economic and Social Council (UN)
ECLAC	Economic Commission for Latin America and the Caribbean (UN)
EFSE	European Fund for Southeast Europe

EIB	European Investment Bank
EU	European Union
EUR	Euro
FFD	Financing for Development
FMO	Nederlandse Financierings-maatschappij voor Ontwikkelingslanden (DFI)
FSD Africa	Financial Sector Deepening Africa
G8	Group of Eight (Canada, France, Germany, Italy, Japan, Russia, UK, and US)
GCF	Green Climate Fund
GDP	Gross Domestic Product
GN	Global North
GNI	Gross National Income
GNP	Gross National Product
GS	Global South
HIV	Human Immunodeficiency Virus
HLEM	Hazard and loss estimation model
IBRD	International Bank for Reconstruction and Development (World Bank Group)
ICMA	International Capital Markets Association
ICRC	International Committee of the Red Cross
IDA	International Development Association
IDB	Inter-American Development Bank
IDF	Innovative Development Finance
IFC	International Finance Corporation (World Bank Group)
IFF	International Finance Facility
IFFIm	International Finance Facility for Immunisation
IfU	Industrialiseringsfonden for Udviklingslandene (Danish DFI)
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
ISDA	International Swaps and Derivatives Association
IsDB	Islamic Development Bank
JBIC	Japan Bank for International Cooperation
KfW	KfW Bankengruppe (originally Kreditanstalt für Wiederaufbau)
LDCs	Least Developed Countries
LIBOR	London Inter-Bank Offered Rate
MBA	Master of Business Administration
MCII	Munich Climate Insurance Initiative
MCPPI	Managed Co-Lending Portfolio Programme

MDB	Multilateral Development Bank
MDGs	Millennium Development Goals
MFD	Maximising Finance for Development
MIGA	Multilateral Investment Guarantee Agency (World Bank Group)
MSMEs	Micro-, Small and Medium-sized Enterprises
NAV	Net Asset Value
NDB	New Development Bank
NGO	Non-Governmental Organisation
OAS	Organisation of American States
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
OECS	Organisation of Eastern Caribbean States
OFID	OPEC Fund for International Development
OOF	Other Official Flows
OPEC	Organisation of the Petroleum Exporting Countries
PEF	Pandemic Emergency Financing Facility
PPP	Public-Private Partnership
PSW	Private Sector Window
R4RR	R4 Rural Resilience
RDB	Regional Development Bank
REDD+	Reducing Emissions from Deforestation and forest Degradation (framework)
SDGs	Sustainable Development Goals
SDR	Special Drawing Rights (IMF)
SEC	Securities and Exchange Commission
SME	Small and Medium-sized Enterprises
SPV	Special Purpose Vehicle
SRI	Socially Responsible Investment
TA	Technical Assistance
TCX	The Currency Exchange
TJN	Tax Justice Network
TOSSD	Total Official Support for Sustainable Development
UK	United Kingdom of Great Britain and Northern Ireland
UN	United Nations
UNCDF	United Nations Capital Development Fund
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation

US	United States of America
USAID	US Agency for International Development
USD	United States Dollar
VaR	Value at Risk
WBG	World Bank Group
WEF	World Economic Forum
WMO	World Meteorological Organisation

Chapter 1. Introduction

1.1 Context

On 8 September 2000 in New York, the largest-ever gathering of world leaders unanimously adopted the UN's Millennium Declaration, setting an international agenda for the 21st century with development and poverty eradication at its centre. Following the summit, the Millennium Development Goals (MDGs) for 2015 were launched, with eight goals aimed at ending extreme poverty, improving health and education, and gender equality, among other goals. These have been hailed as the “most successful anti-poverty movement in history” (United Nations, 2015a: 3). The UN's first International Conference on Financing for Development, held in 2002 in Monterrey, Mexico, marked an increase in political attention to funding development. While focused on foreign aid, the Monterrey Consensus noted concern with resource shortfalls to achieve the MDGs, and called for additional financial resources for development, officially recognising all sources of financing, including private.

In 2015, the Sustainable Development Goals (SDGs) succeeded the MDGs, setting a 2030 agenda for sustainable economic development, with 17 economic, social, and environmental goals. The scale and ambition of these goals is estimated to require between \$3.3 trillion and \$4.5 trillion in annual investment in developing countries, leaving a \$2.5 trillion annual financing gap (UNCTAD¹, 2014). How will this be paid for? Increasingly private finance has been framed as the answer, in part, because aid will be insufficient. The UN argues “urgent action is needed to mobilise, redirect and unlock the transformative power of *trillions of dollars of private resources*” (United Nations, 2020, emphasis added) and the World Bank wants to move ‘from billions to trillions’, combining commercial capital with development needs (Development Committee, 2015). SDG Goal 17 explicitly states “a successful sustainable development agenda requires partnerships between governments, the *private sector* and civil society” (United Nations, 2020, emphasis added). The Addis Ababa Action Agenda, agreed at the third UN summit on financing for development, held in Ethiopia in 2015, called for “unlocking the transformative potential of [...] the private sector” (United Nations, 2015b: 3), with a significant focus on private finance and financial markets to bridge a range of ‘financing gaps’. It is clear private finance sits at the heart of financing for development agendas.

¹ United Nations Conference on Trade and Development.

However, it is less clear what the world of development engaging with the world of finance looks like, exactly how this private capital is to be mobilised, and what the consequences are.

The wider context of this research is a changing development landscape over the last two decades in which the private sector and private finance are play a growing role, in both the governance and funding of development (Blowfield and Dolan, 2014; Van Waeyenberge, 2015; Mawdsley, 2015). Furthermore, the SDGs are deepening trends that are de-centering poverty reduction in favour of economic growth as the key driver of development (Mawdsley, 2015; Murray and Overton, 2016). ‘Beyond aid’ as an umbrella term captures the reduced role of aid relative to other contributions to development, and highlights the increased number and diversity of private sector actors, proliferation of sources of finance, and increased private financial flows in this conjuncture (Janus, Klingebiel and Paulo, 2015). The role of aid and other public finance is increasingly to ‘unlock’, ‘catalyse’, and ‘leverage’ private finance as the private sector has become both the purpose and source of development finance in official discourse (Van Waeyenberge, 2015; Mawdsley, 2018a). Aid can be used to ‘de-risk’ private capital and ‘escort’ capital to ‘emerging’ markets (Carroll and Jarvis, 2014; Gabor, 2021) in a shift away from Official Development Assistance (ODA) to development finance (Mawdsley, 2018a).

In this context, Mawdsley (2018b) has called attention to the financialisation of development, a paradigm shift which has also been termed the ‘Wall Street Consensus’ (Gabor, 2021). The financialisation of development, understood as the growing influence of financial markets, financial actors, and financial processes in international development, is broad; it involves a change in goals, actors, instruments, practices, and logics (see for example Mawdsley, 2018b; Gabor, 2021; Brooks, 2016; Soederberg, 2013; Baker, 2015). An extensive literature on financialisation more broadly has emerged, showing there are important economic, social, and political consequences of financialisation (Pike and Pollard, 2010). This body of research raises important analytical themes I will explore in a development context: the role of the state (Weber, 2010; Brooks, 2016; Alami, Dixon, and Mawdsley, 2021); politics (Peck and Whiteside, 2016; Allen and Pryke, 2013; Bracking, 2015a); profit and accumulation (Rosenman, 2019a; Dowling, 2017; Folkman et al., 2007); social costs (Baker, 2015; Brooks, 2016; Bayliss, 2014); and uneven economic geographies (French, Leyshon, and Wainwright, 2011; Hall, 2012; Leyshon and Thrift, 2007).

1.2 Innovative development finance

Heralded as a solution to bridge the financing gap in development, innovative development finance² (IDF) has become an important part of the development finance landscape, emerging at the intersection of the turn to private finance in development and the financialisation of development. IDF connects to agendas to unlock and leverage vast private resources for social goals, achieve the MDGs and SDGs, and deliver on ‘win-win’ promises. The idea initially appeared in the early 2000s and, by the mid-2000s, had gained considerable political momentum. IDF was officially recognised in the 2002 Monterrey Consensus, received broad support in the UN’s 2005 World Summit Outcome, and several influential organisations emerged to support its agenda, backed by the likes of Gordon Brown as UK Prime Minister, Robert Zoellick as the President of the World Bank, and Ban Ki-Moon as UN Secretary-General, who argued “We urgently need to strengthen and scale up existing innovative mechanisms, and explore new ones” (I-8 Group, 2010: iii). Within a decade, IDF initiatives had proliferated, with notable early examples including the International Finance Facility for Immunisation and Unitaid.

IDF is at the core of the post-2015 development finance landscape. The 2015 Addis Agenda calls for more countries to implement IDF initiatives, replicate existing mechanisms, and explore additional innovative mechanisms which combine public and private resources (United Nations, 2015b: 33). The UN argues special attention should be given to “innovative financial uses of ODA” which “will become more important than ever in the achievement of the post-2015 development goals” (United Nations, 2015c: xiv). The World Bank, International Monetary Fund (IMF) and other multilateral development banks (MDBs) have “committed to use billions in investment funding, aid, and grants, in innovative ways to catalyze trillions in financing of all kinds” (World Bank, 2018a: 2). Today, the landscape of IDF includes a vast range of initiatives with different financial mechanisms and development claims. Remarkably there is no widely agreed definition of IDF, although typical characteristics include complementarity or additionality to ODA, new or non-traditional financial mechanisms, and new partners. As will be discussed, IDF makes three core financial development claims: to leverage private finance, manage risk, and create markets. So far, in academia, there have been some interesting studies of individual cases which could be considered part of the IDF agenda (see for example Erikson, 2019; Brooks, 2016; McGoey, 2014; Hughes-McLure and Mawdsley, 2022), but less attention to analysing IDF as a concept.

² I use the term ‘innovative development finance’ throughout (shortened to IDF for clarity and flow), and consider this synonymous with alternative terms or phrasings, such as ‘innovative financing for development’ or ‘innovative sources of financing’.

1.3 Research questions

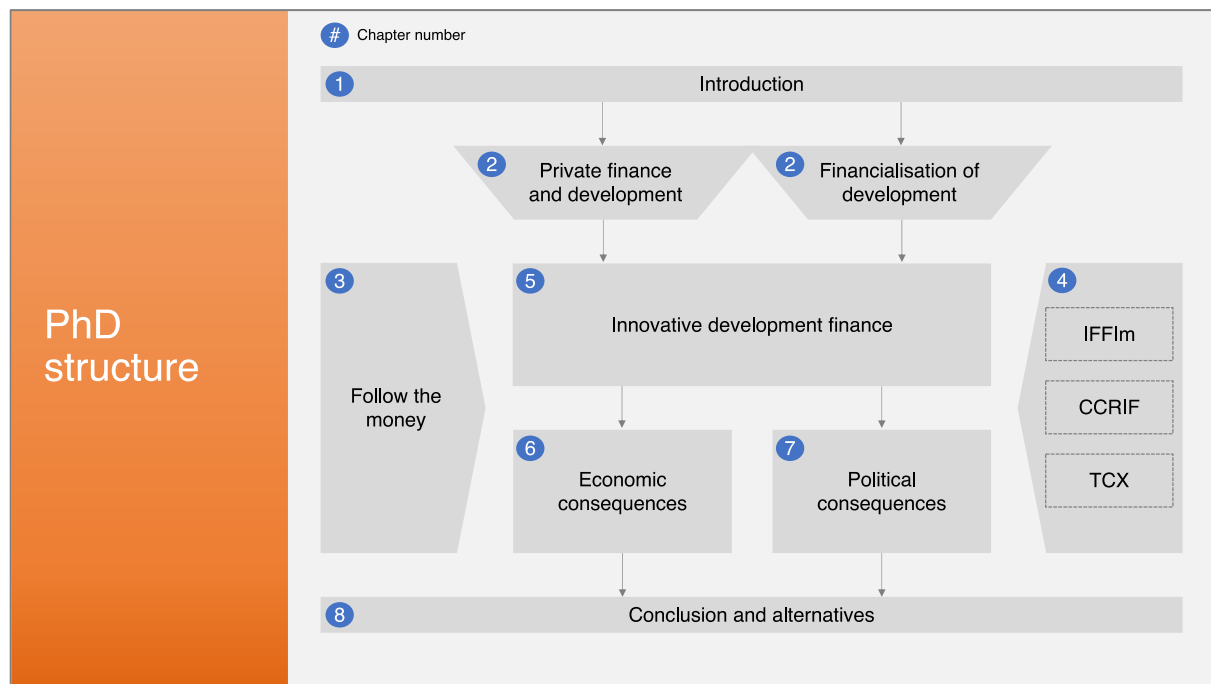
This PhD aims to critically analyse IDF. It is concerned with understanding the idea of IDF, including where it came from, how it fits into wider development agendas, what it is conceptually, and its implications. The research is also motivated by the aim to understand the economic and political consequences of the financialisation of development, explored through IDF initiatives. In parallel, this PhD pursues the idea of following the money as a methodological approach and contribution. The research is framed by the following research questions:

1. What is 'innovative development finance', and how does it fit into the contemporary development finance landscape and trends?
2. What are the implications of IDF for development agendas and stakeholders, including in terms of the distribution of benefits, costs, and risks?
3. What does critical analysis of IDF reveal about the financialisation of development?
4. How can the financialisation of development and IDF be researched and analysed?

1.4 Thesis outline

My thesis is organised as follows (see Figure 1). It begins with situating IDF in the broader context of the private finance turn in development and the financialisation of development. I then present my methodology: follow the money. After introducing the three case studies, my thesis turns to IDF, tracing its emergence and analysing it conceptually. In the next two chapters I analyse the economics and politics of IDF. Chapter 6 scrutinises the financials and claims of IDF, presenting analysis from following the money through the case studies. Chapter 7 presents a political analysis of the case studies, focusing on the techno-financial politics of IDF, and knowledge and power. The final chapter concludes my thesis and touches on alternatives.

Figure 1. PhD structure



Chapter 2 presents my PhD's two conceptual building blocks: development finance in the 'beyond aid' era and the financialisation of development. First, this chapter situates the research in the context of international development governance, policies, and practices since the millennium. The focus is on financing for development, specifically the increased role of the private sector in the MDG era and the turn to private finance in the SDG era. Second, this chapter addresses foundational theoretical issues on financialisation and draws out several key findings from the financialisation literature. Building on these, I develop analytical themes to frame my analysis of IDF in later chapters, namely the role of the state, politics, profit, social costs, and uneven economic geographies. I conclude the chapter by situating the emergence of IDF at the intersection of the private finance turn in development and the financialisation of development.

Chapter 3 presents follow the money, a significant methodological contribution. Follow the money builds on follow the thing, an approach which has been successfully used to follow a range of 'things', from papayas (Cook, 2004) to data (Akbari, 2020). Follow the money, typically associated with crime and investigative journalism, is relatively under-developed in academia. Christophers (2011) presents a compelling theoretical discussion of following the money, however, it is empirically difficult, and it has been challenging to find a single paper in geography or a cognate discipline which actually follows money in detail and in full. I begin the chapter with a literature review introducing follow the thing and unpacking what money is.

I then address how to follow the money using quantitative methods to do critical financial analysis (see also Kass, 2020). Next, I make the case for following money through five themes, outlining the methodology's contributions. The approach can provide a robust and detailed empirical evidence base on a case study and, empirically, delivers an account of the (re)distribution of material resources, revealing who benefits and by how much. Theoretically, the methodology contributes to understanding social and economic relations; financialisation, specifically its mechanisms and consequences; and financial risk. In the chapter I also present some notes of caution on what following money cannot achieve. The chapter ends with some reflections on the broader research methods and process.

Chapter 4 introduces my case studies and covers case study selection. This chapter outlines how I selected cases on conceptual grounds, drawing on an analytical framework of IDF (presented in Chapter 5), adopting a diverse case selection technique, to generate analytical generalisations about IDF. The International Finance Facility for Immunisation (IFFIm) aims to leverage private finance to support immunisation in low-income countries. IFFIm issues vaccine bonds backed by aid from donor governments to frontload funding for Gavi, the Vaccine Alliance (referred to hereafter as Gavi). The Caribbean Catastrophe Risk Insurance Facility's (CCRIF) objective is to manage disaster risk for member governments by providing parametric insurance, backed by a risk transfer to financial markets through reinsurance, and catastrophe bonds and swaps. The Currency Exchange Fund (TCX) targets creating local currency markets to promote local currency development loans by entering into derivative transactions with its Development Finance Institution (DFI) shareholders, as well as commercial investors. All three case studies are well-regarded, emblematic examples of IDF, and also represent cases of the financialisation of development.

Chapter 5 tracks the emergence of IDF and analyses it conceptually (building on Chapter 2). In the chapter I trace IDF in official financing for development discourse from the idea appearing in the early 2000s, through to becoming an established element of financing for development agendas in the late 2000s, and then, in the SDG era, to sitting at the core of development finance. I then present a conceptual analysis of IDF as a financial solution to a development challenge. This section examines, in turn, the three parts of IDF: innovative, development, and finance. My analysis finds that, first, the financial instruments and financial logics which constitute IDF initiatives are ordinary and market standard. Second, IDF makes three core (financial) development claims: to leverage private finance, manage risk, and create markets. Third, initiatives are financial solutions, made up of bundles of market standard financial instruments. The chapter also concludes IDF can be understood as financialised

development. Finally, building on this analysis, the chapter presents my analytical framework of the IDF landscape.

Chapter 6 scrutinises the financials and claims of IDF, structured around the three core development claims (identified in Chapter 5) and a final benefit hiding in plain sight: profit. Following the money through the case studies reveals that, first, while private finance is at the heart of each financial model, there is no mobilising of additional resources for development. Instead, resources are peeled off by private actors, and the initiatives are fundamentally reliant on public finance. Second, initiatives manage some risk in support of development, but this is not comprehensive. In contrast, prudent financial risk management protects financial actors. Third, the financial models support some market creation, better termed expansion of existing financial markets with established actors. Furthermore, these markets are spatially uneven, concentrated in financial centres in the Global North. Finally, the initiatives provide significant opportunities for private profit, in the context of social goals and explicit claims of cost effectiveness. As money circulates through the cases, it is distributed to private financial actors through a range of mechanisms. I conclude the chapter with some generalisable characteristics of IDF which emerge from this analysis and provide insights on the economic consequences of the financialisation of development.

Chapter 7 analyses the politics of IDF. I begin with a literature review engaging with foundational ideas of rendering technical (Li, 2007), the anti-politics machine (Ferguson, 1994), and the rule of experts (Mitchell, 2002). The second section presents my analysis of the techno-financial politics of IDF. Specifically, I examine how the problematisation process bounds a financial domain of intervention and diagnoses a financial problem, and how the interventions represent technical and financial solutions. I conclude this section by suggesting the concept of 'rendering financial?' as a way of thinking through the techno-financial politics of IDF, in particular how development is financialised. The political consequences are to depoliticise and to expand the power of the financial sector, in other words to financialise. The third section analyses knowledge and power in IDF. This section concludes by arguing financial experts rule IDF. My analysis shows how financial experts are at the centre of governing and managing IDF interventions and how their financial models occupy a central political role, ultimately determining outcomes. The political consequences are to limit political control and accountability in development, and expand the power of financial actors and knowledge in development, again, to financialise.

Chapter 8 concludes my thesis. I outline my PhD's empirical, methodological, and theoretical contributions. First, empirically, the thesis contributes an empirically rich critical analysis of

IDF and the financialisation of development. Second, I argue that follow the money is an important methodological contribution. Finally, theoretically, the research contributes a conceptual analysis of IDF, an informed understanding of the mechanisms and consequences of financialisation, and makes a modest proposal for understanding the politics of interventions with the concept of 'rendering financial?'. In this chapter I also briefly outline some alternatives, both alternative financing models and alternative solutions to IDF altogether.

Chapter 2. The private finance turn in development and the financialisation of development

“What changes more often[,] the fashion designs coming from Paris and Milan or the economic policy designs Washington and Wall Street prescribe for countries that are less developed or that are emerging from decades of communism?”

Naim (2000: 505)

2.1 Introduction

Where will the trillions of dollars projected as required to meet the SDGs come from? In answer, the UN states “urgent action is needed to mobilise, redirect and unlock the transformative power of trillions of dollars of *private resources*” (United Nations, 2020, emphasis added). The World Bank agrees with this position with its mantra “from billions to trillions”, that is to say combining commercial capital with development needs or moving “from ‘billions’ in ODA to ‘trillions’ in investments of all kinds” (Development Committee³, 2015: 1), and its Maximising Finance for Development agenda (Development Committee, 2017a). We will come later to the silences about other potential approaches, but for now observe how these statements illustrate the increasing role of the private sector and turn to private finance in development – the subject of this chapter.

This chapter presents the PhD’s two conceptual building blocks: development finance in the ‘beyond aid’ era and the financialisation of development. First, this chapter situates the research in the context of international development governance, policies, and practices over the last two decades. The focus is on financing for development, specifically the changing role of the private sector in the MDG era and the turn to private finance in the SDG era. Second, the chapter presents a discussion of financialisation. This section addresses foundational theoretical issues and draws out several key findings from the financialisation literature to develop analytical themes, namely on the role of the state, politics, profit, social costs, and uneven economic geographies. These themes are starting points for the analysis in Chapter 6 on the financials of IDF and Chapter 7 on the politics of IDF. The chapter concludes by

³ The Development Committee is a ministerial forum of the World Bank and IMF, formally the Joint Ministerial Committee of the Boards of Governors of the Bank and the Fund on the Transfer of Real Resources to Developing Countries.

situating the emergence of IDF, discussed in detail in Chapter 5, at the intersection of the private finance turn in development and the financialisation of development. It is worth noting that, beyond this chapter, Chapter 3 on follow the money includes a literature review on money, and there is a substantive literature review on the politics of development in Chapter 7, which frames the analysis in that chapter.

2.2 The role of the private sector in the MDG era

Before discussing the transformation of development in the MDG era, it is worth briefly looking at what came before. From a Marxian political economy framing, Hart (2010) identifies two key shifts in development discourses and practices since the 1940s which help contextualise the current conjuncture. First, the modernisation era in the wake of WWII, oriented around state-led developmentalism, which lasted until the 1970s (Hart, 2010), and which focused on economic growth. Several new financing and oversight institutions, notably the Bretton Woods institutions, were set up in support of this agenda. Uneven outcomes and a host of critiques of modernisation theory from a wide range of different perspectives, including of wasteful investment (see Toye, 1987), dependency theories of under-development (see Frank, 1989 [1966]), and the role of the state, together with the geopolitical context and debt crisis, set the stage for the neoliberal turn in development in the 1980s (Hart, 2010). Like the modernisation era before it, the central focus during this period was economic growth. However, in contrast to modernisation, neoliberal development agendas were market-led. Under this agenda, free market principles dominated, and the size of the state needed to be limited as it was seen as inefficient, political, and bureaucratic. The private sector, therefore, had a role to play, in particular through privatisation programmes. The Washington Consensus, a term coined in 1989, captures the dominant development policies of the period, summarised as disciplined macroeconomic policy, use of markets, and trade liberalisation (Williamson, 1990; Williamson, 2009). Many of these policies were implemented through Structural Adjustment Programmes (SAPs) by the IMF and World Bank in the 1980s and mid-1990s. The outcomes of SAPs are widely regarded as a failure, and wide-ranging critiques from different perspectives emerged, including from reformists within, in particular of social and environmental costs and rising inequality (see Human Development Report in UNDP⁴, 1990; Stiglitz, 2002). In this context, from the 1990s, in line with the reformist critique, there was increasing emphasis on good governance and institutions (see for example Annan, 1998; Mkandawire, 2007; Leftwich, 1994). The Post-Washington Consensus captures some of this softening of policies (see for

⁴ United Nations Development Programme.

example Saad-Filho, 2010; Stiglitz, 1998), although neoliberalism continues to be an important force politically and economically.

The period around the millennium was marked by a significant shift in dominant development agendas, most notably around a novel focus on poverty reduction (Fukuda-Parr and Hulme, 2009). Economic development was more explicitly intended to serve this end, marking a move away from a narrow focus on economic growth. This apparent global consensus on ending poverty was institutionalised in the UN's Millennium Declaration in 2000 and the Millennium Development Goals (Fukuda-Parr and Hulme, 2009), launched in 2000 and set to be achieved by 2015. The MDGs represented a significant anti-poverty movement, hailed by Ban Ki-Moon as the "most successful anti-poverty movement in history" (United Nations, 2015a: 3), although progress towards the targets was uneven across countries and their success is more contested than supporters claim (see for example Hickel, 2016; Liverman, 2018).

In the MDG era, foreign aid, or Official Development Assistance, took centre stage in funding development initiatives (Mawdsley, 2018a; Mawdsley and Taggart, 2022). Significant efforts for funding development were aimed at donors achieving the target of 0.7% of gross national product (GNP) as ODA to developing countries⁵. Indeed, over the 2000 to 2014 period, ODA increased by 66% (in real terms) to reach \$135.2 billion (United Nations, 2015a). While dominant development discourse was focused on poverty reduction and foreign aid, this did not mean no concern with economic growth (Fukuda-Parr and Hulme, 2009) or a diminished role for the private sector as a key driver of economic growth, job creation, and poverty reduction. On the contrary, MDG development agendas were driven by market principles (Mawdsley and Taggart, 2022). Underlining this, in this period since the 2000s, private finance has played an influential role in development through philanthropy, in what has been termed the epoch of philanthrocapitalism (Kumar and Brooks, 2021). Mitchell and Sparke (2016) propose a New Washington Consensus emphasising the role of philanthropy, which exhibits no historical break from the market rationalities of neoliberalism, and Brooks and Kumar (2021) argue philanthropy has pushed 'privatisation creep', in other words market solutions to development. IDF, as discussed in Chapter 5, further unsettles the simple story often told of a transition from ODA dominating the MDG era to private finance in the SDG era. IDF, which I situate as emerging in the early 2000s, suggests the story is more complex, with a longer

⁵ The 0.7% of GNP in ODA target has a long history. It was first formalised by the Pearson Commission on International Development in 1969 in its Partners in Development report.

history of private finance in financing for development agendas which gains momentum in the MDG era⁶.

In the decade following the 2000 Millennium Declaration, shifts in the official development financing discourse around ODA and the private sector signalled the significant transformation underway in development cooperation more broadly, and development financing in particular, which later crystallised clearly in the SDGs. The UN's first International Conference on Financing for Development, held in Monterrey in Mexico in 2002, marked an increase in political attention to funding development. The summit noted with concern "estimates of dramatic shortfalls in resources required" to achieve development goals, including the MDGs, and the need to mobilise additional financial resources (United Nations, 2002: 5). The Monterrey Consensus adopted at the UN summit officially recognised that all sources of financing were needed to fund development, including public and private, domestic and international. The Monterrey Consensus certainly focused on ODA, and called for a substantial increase, but also stated "Private international capital flows [...] are vital complements to national and international development efforts" (United Nations, 2002: 9). The key role of ODA with regards to the private sector was to create an enabling environment for private sector activity with the view to increase growth and, therefore, reduce poverty (United Nations, 2002). It is worth noting that, although the role of private capital was mainly framed around foreign direct investment, the Monterrey Consensus already explicitly recognised the role of the financial sector and capital markets in development financing (United Nations, 2002), pointing to the long history of a role for financial actors in development funding discourse in the MDG era.

By the second UN summit on Financing for Development in Qatar in 2008, there was a shift in the role of ODA with respect to the private sector. The Doha Declaration reaffirmed the essential role of ODA in financing development, and focused on achieving the 0.7% target, but there were also new roles for ODA (United Nations, 2008a). ODA had a 'catalytic' role in achieving growth and ODA "can play a catalytic role in mobilizing private flows" (United

⁶ Development finance for the private sector has a long history in the activities of various DFIs since the post-WWII period, beginning with the creation of the oldest DFI in 1948, the UK's CDC (Colonial Development Corporation, renamed as the Commonwealth Development Corporation, then CDC Group, and now British International Investment). Historically, while ODA funding was typically provided on concessional terms, the term development finance captured publicly financed debt-based instruments which were not necessarily concessional. More recently, in the last couple of decades (and in this thesis), the term development finance has evolved to include both concessional and non-concessional financial contributions for development, and broadened to include the private sector not only as a recipient but also as a provider of development finance. In line with this evolution, IDF mechanisms can also include both concessional and non-concessional components, as well as public and private sources of finance.

Nations, 2008a: 11). The Doha Declaration notes that “the aid architecture has significantly changed in the current decade. New aid providers and novel partnership approaches, which utilize new modalities of cooperation, have contributed to increasing the flow of resources. Further, the interplay of development assistance with private investment, trade and new development actors provides *new opportunities for aid to leverage private resource flows.*” (United Nations, 2008a: 20, emphasis added). This discourse paved the way for the central role of private finance in the SDG era.

2.3 *The role of private finance in the SDG era*

The UN 2030 Agenda for sustainable development and the Sustainable Development Goals followed the MDGs in 2015. Under the SDG agenda, the primary development goal is sustainable economic development, framed around reducing economic poverty through growth. The SDGs are deepening trends that are de-centering poverty reduction in favour of economic growth as the key driver of development (Mawdsley, 2015, 2018a; Murray and Overton, 2016), marking a partial return to the focus on economic growth in the modernisation and neoliberal eras, albeit with more emphasis on the environment⁷. The 2030 Agenda has reinforced and extended the role of the private sector in achieving development through economic growth. SDG 17 explicitly states that “a successful sustainable development agenda *requires* partnerships between governments, the *private sector* and civil society” (United Nations, 2020, emphasis added). This is, in part, because of the scale and ambition of the SDGs, which are estimated to require \$3.3 trillion to \$4.5 trillion in annual investment in developing countries (UNCTAD, 2014). This leaves a \$2.5 trillion financing gap annually (UNCTAD, 2014), significantly more than the amount of ODA historically available, or that could be hoped to be available, paving the way for alternative sources of funds to play a role in development⁸.

The UN’s third (and most recent) International Conference on Financing for Development, held in Addis Ababa in Ethiopia in 2015, developed a global framework for financing development post-2015, in line with the SDGs. The Addis Ababa Action Agenda called for “unlocking the transformative potential of [...] the private sector” (United Nations, 2015b: 3), which was seen as a critical partner in development, in particular for investment. The Addis

⁷ For critical discussion of the SDGs and whether ‘sustainable development’ can resolve the trade-off between economic growth and the environment, and reduce inequality through growth, see for example Hickel (2019), Adelman (2018), and Liverman (2018).

⁸ This story is not entirely new to the SDGs. For example, there is concern over a shortfall in resources to achieve the MDGs evident in the UN’s 2002 Monterrey Consensus (United Nations, 2002).

Agenda framework stated, “Private business activity, investment and innovation are major drivers of productivity, inclusive economic growth and job creation” (United Nations, 2015b: 17). This marked a departure from the previous Monterrey Consensus and Doha Declaration in the MDG era: there was no explicit mention of the private sector as a driver of poverty reduction. Instead, there was significantly more emphasis on the role of private investment for financing development. The private sector was ever-present in the outcome document, which explicitly cited a role for private investment across a vast range of sectors, including, for example, hunger and malnutrition (clause 13), infrastructure (clause 14), protecting ecosystems (clause 17), financial inclusion (clause 39), gender equality (clause 41), and climate change (clause 60).

While the Addis Agenda reiterated the importance of fulfilling ODA commitments and reaching the 0.7% target, ODA’s importance was markedly reduced. Instead, there was a shift from ODA to the language of ‘international support’ and ‘international public finance’, where “an important use of international public finance, including ODA, is to catalyse additional resource mobilization from other sources, public and private. It can [...] be used to unlock additional finance through blended or pooled financing and risk mitigation, notably for infrastructure and other investments that support private sector development” (United Nations, 2015b: 27). Alongside this, in the context of a long history of debate around the political measure of ODA, a range of different broader measures have been discussed such as Total Official Support for Sustainable Development (TOSSD), Other Official Flows (OOF), or Financing for Development (FFD) that broaden the scope of resources for financing development.

In addition to the increased role for the private sector generally, the financing for development agenda at this time explicitly focused on private finance, financial markets, and financial actors. Mirroring the changing role of ODA, MDBs and other development banks’ role now included leveraging and mobilising resources from capital markets and developing financial instruments to channel investors’ resources into development (United Nations, 2015b). In fact, in preparation for the Addis Ababa summit, the World Bank and IMF made the case for a shift in development finance around leveraging the private sector (World Bank and IMF, 2012). Furthermore, in contrast to the Monterrey Consensus which included general mentions of private finance actors like ‘financial institutions’, a wider range of private financial actors were explicitly included in the Addis Agenda, including institutional investors such as pension funds, sovereign wealth funds, and insurance, as well as impact investors, philanthropy, and venture capital funds, underlining the Addis Agenda’s focus on developing capital markets. Specific financial mechanisms which include private finance, such as public-private partnerships (PPPs) and risk mitigation instruments also featured more prominently, while new

mechanisms appeared for the first time such as blended finance and special-purpose vehicles (SPVs). Finally, the Addis Agenda identified a multitude of financing ‘gaps’, from the ‘infrastructure gap’ (clause 14) to the ‘peacebuilding financing gap’ (clause 8), through the more general ‘large financing gaps’ in credit market segments (clause 33) and ‘investment gaps in key sectors’ (clause 35). This ‘gap’ story lays out a clear rationale and justification for the turn to private finance, and the discourse of financing ‘gaps’ also crops up in many guises in the story of the emergence of IDF in Chapter 5.

In the lead-up to the Addis Ababa summit, the World Bank, IMF and five significant multilateral development banks⁹ proposed the influential ‘From billions to trillions’ agenda to transform development finance. The MDBs’ note argued a “paradigm shift on how development will be financed is required to unlock the resources needed to achieve the SDGs” (Development Committee, 2015: 2). The transformation was to move “from ‘billions’ in ODA to ‘trillions’ in investments of all kinds” (Development Committee, 2015: iii). That is, development flows include, for example, foreign direct investment, philanthropy, remittances, South-South flows, and other official assistance beyond ODA. The greatest potential for expansion was identified as private sector business, finance, and investment (Development Committee, 2015). The role of the MDBs was to ‘unlock’, ‘leverage’, and ‘catalyse’ private and public resources (Development Committee, 2015). The agenda was situated in the context of a “new development finance architecture” which had emerged (Development Committee, 2015: 6) with a significant increase in financing flows to developing countries from international private finance, private philanthropy, and migrant remittances (see Figure 2, Development Committee, 2015). The agenda was built on the premise that, post-2015, while ODA and domestic public resources remained essential, they were insufficient to finance the ambition of the SDGs, and so private resources would have to be mobilised, such as foreign direct investment, bond issuances, and financing from institutional investors (Development Committee, 2015). Indeed, the private sector’s role in financing the post-2015 development agenda was considered ‘pivotal’, and a substantial part of the discussion note was dedicated to efforts to engage and incentivise private finance (see Development Committee, 2015). Five areas were identified to increase private capital flows for development:

1. Enhancing project preparation and risk mitigation to catalyse *investment flows*;

⁹ The Development Committee discussion note ‘From Billions to Trillions’ was prepared jointly by the African Development Bank (AfDB), Asian Development Bank (ADB), European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB), Inter-American Development Bank (IDB), International Monetary Fund (IMF), and World Bank Group (WBG).

2. Promoting *local capital markets* and facilitating greater access to *local currency finance*;
 3. Supporting *local banking* and other *domestic finance* to expand reach;
 4. Enhancing the impact of the private sector via inclusion and sustainability; and
 5. Providing new and expanded channels to enhance *private sector flows* and expertise towards development.
- (Development Committee, 2015: 14-17, emphasis added)

The development agenda in ‘from billions to trillions’ was no longer just focused on promoting private sector activity, but rather supporting private *finance* – development efforts were centred on promoting private investment, supporting capital markets, and increasing the volume of private financial resources.

Figure 2. Financial flows to developing countries in ‘From billions to trillions’ note (Source: Development Committee, 2015)

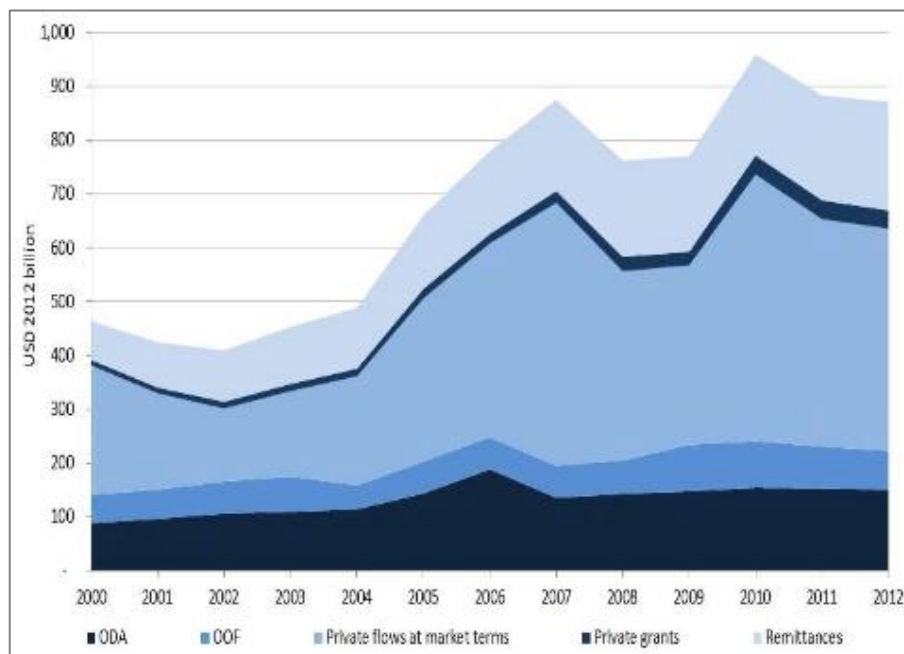
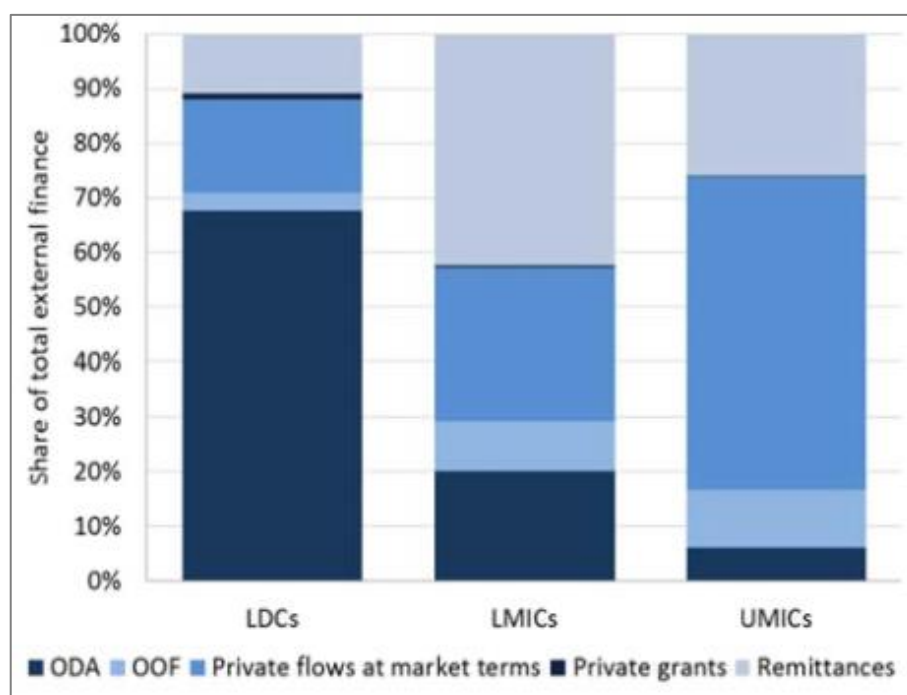


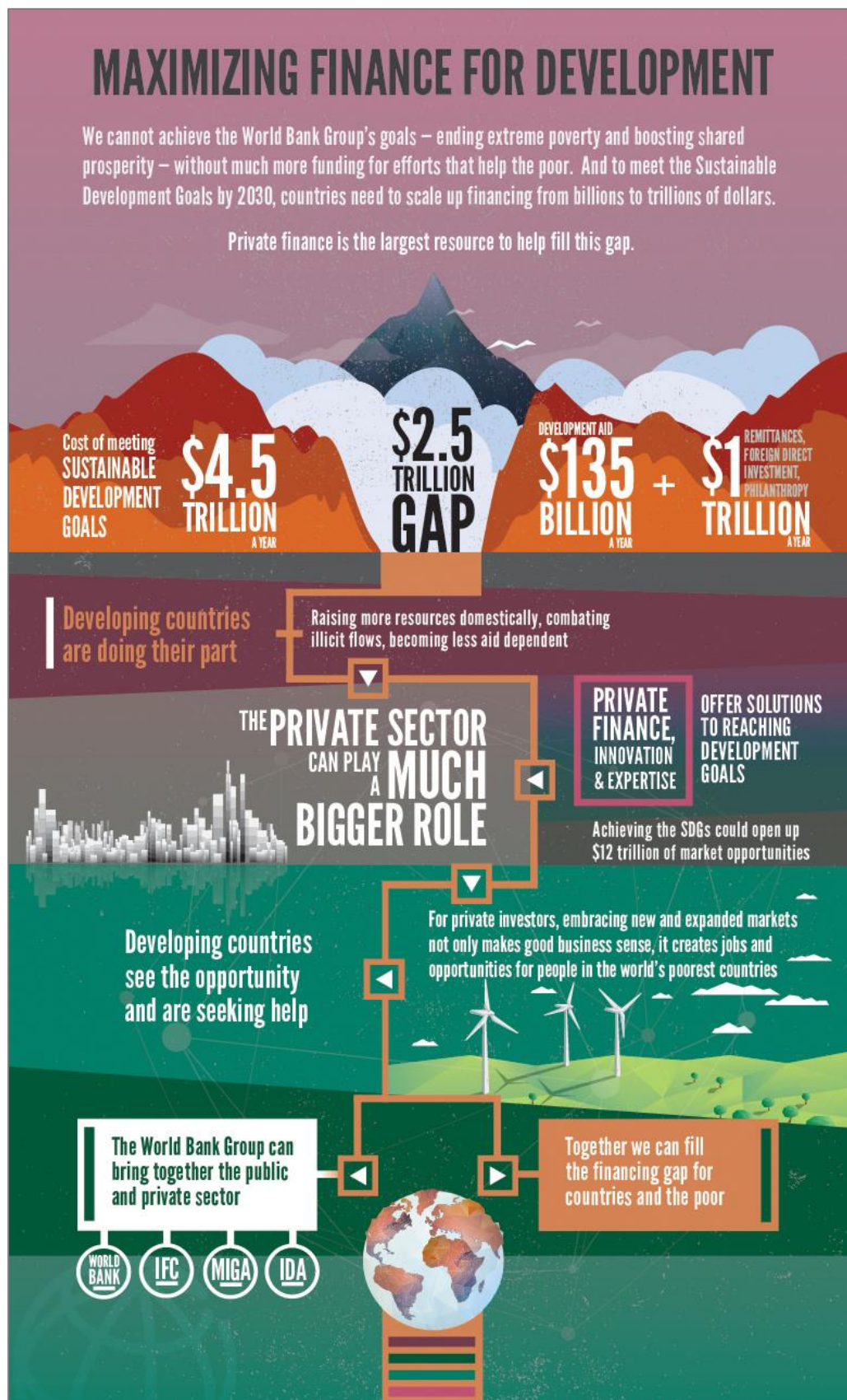
Figure 3. Composition of financial flows to developing countries in 'From billions to trillions' note (Source: Development Committee, 2015)



The World Bank further promoted and operationalised the turn towards the private sector and private finance in development through its 'Maximising Finance for Development' (MFD) agenda (see Development Committee, 2017a; see also Figure 4). The MFD approach, in support of the 2030 agenda, was framed around "leveraging the private sector for growth and sustainable development" (Development Committee, 2017a: 1) to fill the \$2.5 trillion gap in financing the SDGs (see Figure 4). MFD builds on groundwork set out in 'Forward look', the World Bank's vision for 2030, which stated "the WBG will expand its work with the private sector, bringing together the joint capabilities of IFC, MIGA, and IBRD/IDA¹⁰. [...] To ensure that private capital can impact development, the WBG will help countries unlock opportunities and create new markets" (Development Committee, 2016: 5).

¹⁰ World Bank Group includes International Finance Corporation (IFC); Multilateral Investment Guarantee Agency (MIGA); International Bank for Reconstruction and Development (IBRD); and International Development Association (IDA).

Figure 4. World Bank Maximising Finance for Development infographic (Source: World Bank, 2018b)



The MFD agenda prioritises private finance, positioning public finance as scarce. The MFD approach specifically engages private finance and financial actors, not just the broader private sector. For example, it states “mobilizing finance for development will require partnering with institutional investors, including pension funds, insurance companies, and sovereign wealth funds” (Development Committee, 2016: 3). Leveraging private finance, managing risk, and creating markets are central parts of the agenda, themes which will re-appear in the analysis of IDF in Chapter 5. The goal is to “maximize development finance for value-adding investments, promote judicious use of scarce public and concessional resources, crowd-in commercial capital, and minimize the public debt burden” (Development Committee, 2017b: 5). To maximise finance for development will mean the World Bank “pursuing private sector solutions where they can help achieve development goals, and reserving scarce public finance for where it is most needed”, in other words leverage the private sector and use public resources only where private sector solutions are not possible (Development Committee, 2017a: 1; see Figure 5). A new, important element here is the framing of ‘scarce’ public finance, this is despite the ‘from billions to trillions’ agenda explicitly recognising that “the most substantial development spending happens at the national level in the form of public resources” (Development Committee, 2015: 1). The World Bank’s ‘cascade’ approach operationalises its agenda to leverage more private financing, manage risk, and create markets (see Figure 6). The ‘cascade’ positions private sector financing at the heart of development, prioritising commercial private finance, with public resources re-cast in the role of leveraging.

Figure 5. World Bank Maximising Finance for Development ‘cascade’ approach (Source: Development Committee, 2017a)

Box 1: Maximizing Finance for Development – Cascade Objective and Algorithm

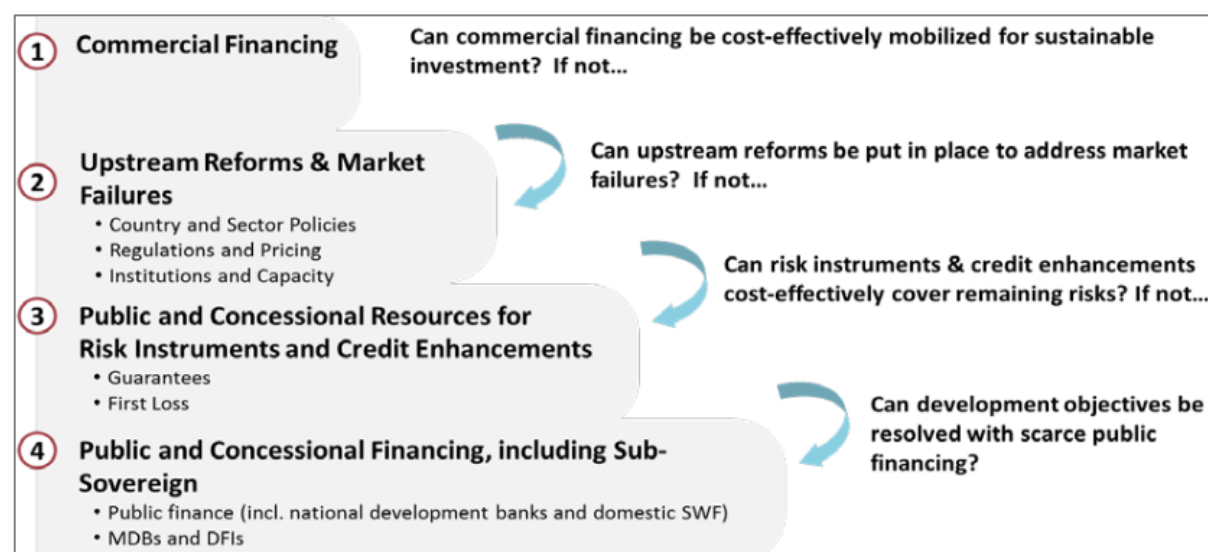
Maximize financing for development by leveraging the private sector and optimizing the use of scarce public resources. WBG support will continue to promote good governance and ensure environmental and social sustainability.

When a project is presented, ask: “Is there a sustainable private sector solution that limits public debt and contingent liabilities?”

- If the answer is “Yes” – promote such private solutions.
- If the answer is “No” – ask whether it is because of:
 - Policy or regulatory gaps or weaknesses? If so, provide WBG support for policy and regulatory reforms.
 - Risks? If so, assess the risks and see whether WBG instruments can address them.

If you conclude that the project requires public funding, pursue that option.

Figure 6. World Bank ‘cascade approach’ (Source: Development Committee, 2017b)



While the World Bank was a leading and influential force in the transformation of development finance towards private finance, it was by no means alone. The Hamburg Principles (see G20, 2017), adopted by the G20 in 2017 set out a common framework for MDBs to maximise the mobilising and catalysing of private sector resources and support increased private investment for the 2030 development agenda. Building on this framework, MDBs committed to increase private sector mobilisation by 25 to 30% in three years in the Joint MDB Statement of Ambitions for Crowding in Private Finance (see MDBs¹¹, 2017).

2.4 Development finance in the ‘beyond aid’ era

The wider context of this research is this changing development landscape over the last two decades, in which the private sector and private finance are being solicited and facilitated to play a growing role in both the governance and funding of development (Blowfield and Dolan, 2014; Van Waeyenberge, 2015; Mawdsley, 2015; Mawdsley and Taggart, 2022). Echoing the quote opening this chapter, this is a complex transformation with many elements, which scholars have described through a range of concepts. At a high level, ‘beyond aid’ conceptualises the transformation of development as an umbrella term for the reduced role of

¹¹ AIIB (Asian Infrastructure Investment Bank), AfDB, ADB, EBRD, EIB, IADB, IsDB (Islamic Development Bank), NDB (New Development Bank), and WBG.

aid relative to other contributions to development (Janus, Klingebiel, and Paulo, 2015). Drawing on the concept of ‘big D’ and ‘little d’ development (see Cowen and Shenton, 1996; Hart, 2001, 2010), Mawdsley and Taggart (2022) argue development, that is the immanent structures and processes of capitalism, ever more deeply inhabits Development, the formal, interventionist international Development sector, since around 2008. Olwig (2021) argues the concept of development is being turned into ‘doing good’ by anyone and anywhere, with a central role for business, and relevant for everyone and everywhere. The increasing role of for-profit actors in development is framed as apolitical ‘doing good’, another iteration in a long history of development being de-politicised (Olwig, 2021; Li, 2007; Ferguson, 1994). From a funding perspective, there has also been an important shift. The role of public flows is increasingly to support private flows as the private sector has become both the purpose and source of development finance in official discourse (Van Waeyenberge, 2015; Brooks, 2016). Aid is, for example, used to mitigate risk for private capital and ‘escort’ capital to ‘emerging’ markets (Carroll and Jarvis, 2014). In the ‘billions to trillions’ vision, the role of aid and other public finance has become to ‘unlock’, ‘catalyse’ and ‘leverage’ private finance (Van Waeyenberge, 2015; Mawdsley, 2018a) in a shift away from ODA to development finance (Mawdsley, 2018a; Mawdsley and Taggart, 2022).

Several forces are contributing to the increased role of the private sector and private finance in development since around the year 2000. One argument sees these changes as a spatial fix for capital (see Harvey, 1975, [1981 cited in] 2001, 2018 [1982]). Following the Global Financial Crisis, the private sector and finance in the Global North faced historically low growth rates and interest rates, combined with a significant savings glut or accumulation of wealth, therefore, firms sought higher returns and investment opportunities in new markets (Van Waeyenberge, 2015; Bigger and Webber, 2021). Relatedly, in the wake of the Global Financial Crisis, there was less willingness to publicly finance development and ODA budgets as many OECD¹² Development Assistance Committee (DAC) donors implemented austerity programmes, leading them to look to the private sector (Van Waeyenberge, 2015). Alternatively, the shift can be seen as a geopolitical strategy. Drawing on the case of South Korea’s ODA to Africa, Kim and Gray (2016) argue that development assistance can be understood as a complex spatial fix shaped by diverse political and economic objectives, which may be contradictory. Development policy is driven by both economic objectives and geopolitical imperatives (Kim and Gray, 2016). Related to these geopolitical objectives, another contributing force is the rise of non-DAC development partners, or the southernisation of development, which has created a material, ideational and ontological challenge for the

¹² Organisation for Economic Cooperation and Development.

‘traditional’ donors (Mawdsley, 2017). Specifically, narratives of mutual benefit and ‘win-win’ in North-South Cooperation have been adopted, together with blending public and private finance. In the name of development, Northern and Southern partners are converging on an open agenda of publicly subsidised support for private sector growth (Mawdsley, 2017). These different dynamics at play contribute to the private sector and private finance turn in development.

The private sector is taking on this increasingly prominent role in development in various forms. A diverse set of private actors are involved (Janus, Klingebiel and Paulo, 2015), from corporates leading bottom billion capitalism and bottom of the pyramid schemes (Roy, 2012; Elyachar, 2012), or development contractors (Roberts, 2014), to philanthropic foundations involved in philanthrocapitalism (McGoey, 2014; Mitchell and Sparke, 2016; Kumar and Brooks, 2021), and entanglements with DFIs and national development banks (Bracking, 2015b; Alami, Dixon and Mawdsley, 2021). Similarly, the expansion of funding for development to more explicitly include, and indeed focus on, private finance is delivered through a range of financial mechanisms (see for example Van Waeyenberge, 2015). Examples include blended finance (Pereira, 2017; Christiansen, 2021), impact investing (McGoey, 2014; Kish and Fairbairn, 2018), bonds (Erikson, 2019; Bracking, 2015c; Bigger and Millington, 2020; Hughes-McLure and Mawdsley, 2022), insurance (Brooks, 2016; Johnson, 2021a, 2022), or PPPs (Bayliss and Van Waeyenberge, 2018; Bayliss, Romero, and Van Waeyenberge, 2021).

It is worth briefly expanding on public-private partnerships as there are some similarities with IDF, specifically in recent narratives discussed in Chapter 5 and issues of cost which are taken up in Chapter 6. PPPs have a relatively long history going back to the 1980s, when private sector involvement was promoted in development discourse, especially through privatisation (Bayliss and Van Waeyenberge, 2018). More recently, in the last decade there has been a revival of PPPs as part of the agenda to increase private sector participation in development, despite extensive evidence on their limitations and costs (Bayliss and Van Waeyenberge, 2018; Trebilcock and Rosenstock, 2015; Bigger and Webber, 2021; Whiteside, 2020; Storeng, de Bengy Puyvallée and Stein, 2021). Bayliss and Van Waeyenberge (2018) situate this revived support for PPPs as a response to a global savings glut where institutional investors are looking for investment opportunities. This means PPPs are increasingly finance-driven and infrastructure is reconfigured as an asset class (Bayliss and Van Waeyenberge, 2018). However, evidence suggests PPPs do not address the financing gap, as they are costly for the state. In fact, research suggests the intended leveraging effect tends to be upside down – a small amount of private finance mobilises a large amount of public funds (Bayliss, Romero

and Van Waeyenberge, 2021). In addition to PPPs, there are interesting parallels between development finance in the ‘beyond aid’ era (including IDF) and social and green finance, which I turn to next.

2.5 Parallels: Social finance and green finance

There are interesting parallels and overlaps between the turn to private finance in development and both social finance and green finance. Under these umbrellas, private finance is increasingly part of financing social and environmental initiatives in different parts of the world. Social finance, which is distinct from traditional finance and philanthropic grants, includes, for example, social impact bonds, social impact investment, or mission-related investments by philanthropies (for a typology, see Rosenman, 2019b). Work on social finance has examined a wide range of areas, such as housing (Rosenman, 2019a), the welfare state (Dowling, 2017), or education (Cohen and Rosenman, 2020). Similarly, research on green finance has examined a wide range of areas, such as green bonds (Bracking, 2015c; Jones et al., 2020; Bigger and Millington, 2020), conservation (Sullivan, 2013), and climate finance (Bracking, 2019), or the blue economy (Christiansen, 2021) and agriculture (Kish and Fairbairn, 2018; Dempsey and Bigger, 2019). In some cases, a single intervention explicitly integrates environmental and social or development goals (see for example Büscher, 2010; Li, 2007). There are many similarities across social and green finance, including in narratives, mechanisms and processes, and good reasons to work across the environmental-social divide (Cohen and Rosenman, 2020; see also Dempsey and Bigger, 2019; Bigger and Millington, 2020). Importantly, in both social and green finance, there is a dual profit and social or environmental motive, akin to development finance’s claim to deliver profit and development progress. These schemes enrol private finance in social impact or environmental initiatives, which may have been previously funded publicly or by not-for-profit organisations. Despite the buzz, it is worth noting that the actual volume of capital in green finance (and social finance) is still relatively small, remaining on the margins of global capital flows, and often seeks little to no profit (Dempsey and Suarez, 2016), a point I return to in Chapter 5 with respect to IDF.

Ideationally, social and green finance are often situated within similar discourses and operate with similar logics as the private financing of development. Narratives justifying social or green finance interventions are strikingly similar to those behind the turn to private finance in development, and IDF in particular. The ‘win-win’ logic at work supporting both for-profit development and social or green finance projects is that both profit and social or environmental goals can be met, or in other words private actors can do well by doing good (Olwig, 2021;

Rosenman, 2019b; Cohen and Rosenman, 2020). Social finance “reframes finance as a force for engendering, rather than disrupting, the public good” (Rosenman, 2019b: 141). Additionally, as with development finance, calls for green finance to address the environmental crisis and climate change are rationalised through the idea of leveraging or unlocking private capital (Jones et al., 2020). Private capital is required to fund a trillions of dollars green finance ‘gap’, which has been identified, and which apparently cannot be funded publicly (Clark, Reed, and Sunderland, 2018; Bigger and Webber, 2021), echoing the financing ‘gaps’ identified in development. Similarly, private finance is positioned as the only way to fund social initiatives (Mitchell, 2016).

Materially, social and green finance initiatives are composed of similar financial mechanisms, processes, and actors as those found in a development context. Private finance is deployed in social and green finance projects through similar financial mechanisms. There are, for example, social impact bonds and green bonds and development impact bonds (Dowling, 2017; Berndt and Wirth, 2018; Erikson, 2019), impact investment schemes in housing and agriculture (Rosenman, 2019a; Kish and Fairbairn, 2018), or payment for results structures for pandemics, REDD+¹³ schemes, and rhino conservation (Erikson, 2019; Bracking, 2019; Hughes-McLure, 2022). Beyond the financial instrument itself, many of the same processes are at work across social, green, and development finance (Cohen and Rosenman, 2020). For example, at the centre of making nature investable as natural capital, sits the process of making nature into an asset that can be leveraged financially (Sullivan, 2018). Additionally, many of the same actors are involved across the social-green-development finance landscapes. On the one hand these include, for example, institutional investors, impact investors, private equity, or MDBs such as the World Bank (Rosenman, 2019a; Kay, 2018; Jones et al., 2020). On the other hand, are state and philanthropic actors who are central to supporting many schemes (Dempsey and Suarez, 2016; Kay, 2018; McGoey, 2014; Cohen and Rosenman, 2020; Rosenman, 2019a; Dowling, 2017). Across these actors, many researchers have found a transfer of resources from the public to the private sector (Dowling, 2017; McGoey, 2014).

The close parallels between private finance in development, social finance, and green finance raise questions over the boundaries of development. Social finance initiatives are often located in the Global North (as can be green finance). In contrast, development finance is typically a flow From Global North to Global South, although IDF complicates this as many actors and flows of money are in the Global North. Indeed, Rosenman notes that “geographies

¹³ Reducing Emissions from Deforestation and forest Degradation.

of social need further complicate categories of North as investor and South as beneficiary” (2019b: 152). The trend of turning to private financing of public or social projects, therefore, appears in both the Global South and Global North, albeit often under a different name, and undoubtedly with some important differences. The parallels with social and green finance suggest the turn to private finance in the context of social goals is a global phenomenon, not limited to the Global South and development. The parallels, then, raise questions over the boundary of development and what makes an initiative something specific to development, blurring the distinction between ‘little d’ development and ‘big D’ Development (see Mawdsley and Taggart, 2022).

Importantly, the parallels across development-social-green finance also suggest research may be informative across these areas which are often treated in silos. Indeed, Cohen and Rosenman (2020) specifically make the case for geographic research on impact investing across the nature-social divide. Given the ideational and material similarities, findings from research on social and green finance can be informative for the study of the turn to private finance in development, and IDF in particular (see Chapter 5). In the other direction, findings from research on private financing of development can have broader applicability, especially to social and green finance. Attention in research on social and green finance, like with development, has focused on the financialisation of social activities and the environment, which I, therefore, draw on in the next sections on financialisation (see for example Dowling, 2017; Kish and Fairbairn, 2018; Bracking, 2019; Sullivan, 2013; Ouma, Johnson and Bigger, 2018; Asiyanbi, 2018).

2.6 Financialisation: Conceptual foundation

Mawdsley (2018b) is amongst several commentators who have called attention to the financialisation of development, which for Gabor (2021) represents such a paradigm shift that this conjuncture can be characterised as the Wall Street Consensus. As part of this, financial development strategies of ‘financial deepening’ and ‘financial inclusion’ are common (Brooks, 2016; Soederberg, 2013; Gabor and Brooks, 2017). Donors and other development institutions are pursuing financialisation through the expansion and deepening of financial markets and logics in the name of development, while financial firms and their interests have taken on an important role in development (Mawdsley, 2018b). Indeed, Gabor (2021) argues global finance is framed as *the* key actor to achieve the SDGs, and Karwowski (2022) argues it is specifically commercial finance that can introduce financialisation in developing and emerging economies. Furthermore, the role of aid has shifted. A significant purpose for ODA

has become to mitigate risk for private capital, or to 'escort' capital to 'emerging' markets, and do the work of transforming mundane objects into assets for speculative capital (Gabor, 2021; Carroll and Jarvis, 2014; Mawdsley, 2018b; Leyshon and Thrift, 2007). Mawdsley (2018b) argues these transformations, together, have culminated in a reframing of financialisation as development. The financialisation of development, then, is more than just an increase in private finance, it is also a change in goals, actors, instruments, practices, and logics. There are many consequences of an increased influence of financial markets, actors, and processes in international development.

This section addresses foundational theoretical issues about the concept of financialisation. The discussion engages with existing research on financialisation, historical context, the definition of financialisation and the conceptual approach this PhD will take to financialisation, also addressing some important critiques which have emerged in the literature. The subsequent section aims to pull out some important analytical themes from the extensive literature on financialisation, including of development, which serve as framing and starting points for analysis in later chapters.

This research is concerned with the financialisation of development, understood as the increased social and spatial reach of finance into international development, which has drawn new people and places into the financial system, reconfiguring roles and relationships often in unequal and uneven ways (Pike and Pollard, 2010). An extensive literature has emerged on financialisation, especially following the Global Financial Crisis events in 2007 and 2008. Research has examined a range of sectors of activity, such as nature and health (Ouma, Johnson and Bigger, 2018; Sullivan, 2013; Hunter and Murray, 2019); at different scales, from individuals to cities to national economies (Fields, 2017a; Weber, 2010; Krippner, 2005); across a range of actors, such as private equity funds or management consultants (Bracking, 2012; Froud et al., 2000); and a plethora of financial instruments, such as weather derivatives and vaccine bonds (Pryke, 2006; Brooks, 2016; Hughes-McLure and Mawdsley, 2022). Much of the work on financialisation is focused on Anglo-American places and formal western economies, reflecting economic geography's broader bias in theorisation (Pollard et al., 2009). Research has (slowly) moved beyond this early focus, paying more attention to national or local context (see for example Gabor, 2012; Rethel, 2010; Bonizzi, 2013) or through the study of variegated journeys of financialisation (see for example Karwowski and Stockhammer, 2017; Lapavitsas and Powell, 2013; Lapavitsas and Soydan, 2022). There are important reasons to examine financialisation in the context of development. Finance is connected to political systems, space, and the 'real economy' (Pike and Pollard, 2010; Harvey, 2018 [1982]; French, Leyshon and Wainwright, 2011; Leyshon and Thrift, 2007), and contributes to the

production of “material, social and political unevenness” (Pike and Pollard, 2010: 34; see also Leyshon and Thrift, 2007; Hall, 2012; Froud et al., 2000).

There are several ‘schools of thought’ on financialisation, influenced by a range of disciplines, theoretical foundations and different approaches. French, Leyshon and Wainwright (2011) identify three intellectual ‘schools’. First, regulation theory which interprets financialisation as a macroeconomic phenomenon and focuses on its role in different regimes of national accumulation, specifically a finance-led regime of accumulation (see for example Arrighi, 1994; Boyer, 2000). Second, a critical social accountancy approach which examines the relationship between corporations and financial markets (see for example Froud et al., 2000, 2006; Williams, 2000). Third, sociocultural or cultural economy approaches which focus on the financialisation of everyday life (see for example Martin, 2002; Langley, 2006, 2007; Fields, 2017a). Pike and Pollard (2010) add two further ‘schools’ (see also Mader, Mertens and Van Der Zwan, 2020). Fourth, institutionalist approaches which focus on growth in the power of financial interests and actors in broader institutional networks that constitute national ‘varieties of capitalism’ (see for example Hall and Soskice, 2001) or corporate governance approaches (see for example Lazonick and O’Sullivan, 1996, 2000). Fifth, heterodox economic approaches which examine financialisation drawing on political economy and post-Keynesian work (see for example Stockhammer, 2004; Epstein, 2005). Different approaches have also led to different arguments about the nature of financialisation, for example understanding financialisation as the increasing power of financial interests, the dominance of financial logics, or the transformation of society and culture. The aim here is not to review the different schools and resolve their conceptualisations and debates, but to emphasise the wide range of approaches which have shaped the literature. Different perspectives and findings are not necessarily mutually exclusive across schools of thought or disciplines, but taken together can contribute to our understanding of the bigger, complex picture of financialisation (Mader, Mertens and Van Der Zwan, 2020).

Historically, financialisation is often understood as a shift in capitalism and expansion of the role of finance in economic and social processes since the 1970s (Krippner, 2005; Christophers, 2015), although it is neither entirely new nor necessarily a radical departure (Christophers, 2015). Three ways of periodising financialisation can be identified in the literature (Christophers and Fine, 2020; Vercelli, 2013). Financialisation can be periodised as a unique historical episode, a phenomenon recurring in waves, or a long-run process or tendency (Christophers and Fine, 2020; Vercelli, 2013), although Vercelli argues “the three options do not exclude each other” (2013: 21). Again, the aim here is not to resolve debates around the periodisation of financialisation, but rather to highlight that the phenomenon is not

entirely new to the period since the 1970s, there is a longer history (Christophers, 2015). Furthermore, Christophers argues that while there is a tendency to treat financialisation as a departure from a non-financialised norm, it is not necessarily 'other' to a 'normal' capitalism (Christophers and Fine, 2020; see also Christophers, 2015). Indeed, Christophers argues capitalism is inherently financial (Christophers and Fine, 2020; drawing on Minsky, 1967). Christophers explains the tendency through the influence of national accounting, which was the first time 'the economy' was thought of as a coherent whole (Mitchell, 1998), and so a particular period and approach defined the baseline understanding of a 'normal' capitalist economy as one with a reduced role of finance (Christophers and Fine, 2020; see also Christophers, 2015). In this context, the emphasis in this research is on the intensification of the role of finance in capitalism broadly, and its extension to economic and social processes in development, which leads to the definition of financialisation addressed next.

This PhD draws primarily on the definition of financialisation as the "growing influence of capital markets, their intermediaries, and processes in contemporary economic and political life" (Pike and Pollard, 2010: 29). While in its essence this definition is close to Epstein's (2005: 3) widely cited, broad definition of financialisation as the "increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies", it explicitly centres on broadly conceived 'economic and political life' relevant to the study of development cooperation. This contrasts with alternatives which narrow the focus of study to firms or households which suit different empirical work (see for example Krippner, 2005; Froud et al., 2006; Blackburn, 2006) or which sit within a specific theoretical framework, such as Marxist political economy where it can be defined as the expansion of interest bearing capital (Fine, 2013; though this definition is debated within this tradition, see for example Lapavistas, 2011).

While this definition of financialisation is relatively broad, it is not used to stretch the concept loosely or beyond its limits. Financialisation cannot be applied analytically to any social, political or economic process that vaguely involves finance or money in some way (see Christophers, 2015). This PhD heeds Engelen's (2008) call for care over 'conceptual stretching' (see Sartori, 1970), which captures the tendency of theoretical concepts to "cover ever-larger object areas until they become 'fuzzy' at first and 'empty abstractions' at last" (Engelen, 2008). Financialisation is distinct from concepts such as neoliberalisation,

commodification, privatisation, and globalisation¹⁴. Bracking (2020) provides a nice example to illustrate this, distinguishing financialisation from commodification for a hectare of forest, drawing on a narrow definition of financialisation applied to products which become interest bearing. The forest could be commodified as timber or as an area of land that is traded. To be financialised, with this definition, the forest would additionally need to be used as a commodity which became interest-bearing. For example, if it was leased, if its expected future timber production was tradable, or if it was securitised so that a different owner held the interest streams and the fixed asset. The forest would also be financialised if it became a species bank, a carbon sequestration unit under REDD+, or another product where the interest stream was detached from the underlying forest asset. While this PhD does not define financialisation exactly as in this example, it does insist on a precise and rigorous identification of what makes a case financialisation. For example, the concept of financialisation might be employed to analyse a case where there is a particular financial process such as the securitisation of an income stream, or a particular financial instrument such as insurance-linked securities or green bonds. It also insists that there are limits to financialisation's scope of applicability conceptually and empirically, and dangers of applying the concept vaguely (see also Christophers, 2015). This means specifically identifying the object of the research and what financialisation means. This research is concerned with the growing influence of financial markets, financial actors, and financial processes in development.

Conceptually, this PhD takes a mechanism-oriented approach to financialisation to engage with the consequences of the financialisation of development. It moves beyond a 'financialisation of' account to answer the 'so what?' of financialisation (Christophers, 2015; Engelen, 2008; Mader, Mertens and Van Der Zwan, 2020). Financialisation as a concept has been variously treated as what is to be explained, the explanation, and as the mechanism linking cause to effect (Aalbers, 2017). In this research I use a mechanism-oriented concept. I use financialisation as a theoretical concept, not a descriptive concept, with the purpose to be an explanatory tool which offers a causal mechanism, albeit with a range of different approaches to causality (see Engelen, 2008). The concept of financialisation can be imprecise because of the empirical complexities of the cases financialisation aims to understand; and in those cases, causation should be recognised as non-linear, multi-dimensional, and multi-scalar (Aalbers, 2017), or also multi-causal (Engelen, 2008). In this context, this research's aim is to examine the consequences of the financialisation of development, focusing on the

¹⁴ For a map of the conceptual field of financialisation relating some of these concepts, see Engelen (2008), which, for example places financialisation and commodification under globalisation, privatisation under commodification, and securitisation under financialisation.

academic and societal significance of findings. In Chapter 6 and Chapter 7, I examine in detail this ‘so what’ of financialisation, revealing the link between the processes and mechanisms of financialisation and their economic and political consequences. With this aim in mind, this research takes several key findings in the wider financialisation literature to develop analytical themes as starting points for analysis in the development context. These analytical themes are the role of the state, politics, profit, social costs, and uneven economic geographies.

2.7 Financialisation: Analytical themes

The first theme is the critical and active role of the state in financialisation processes, as both an agent and a site of financialisation (Weber, 2010; Peck and Whiteside, 2016; Bayliss, 2014). For example, in the case of urban redevelopment policy through tax increment financing, Weber (2010) shows how local governments actively participated in constructing financial markets and instruments. Specifically, Weber (2010) finds that the financialisation of local urban policy required political power, authority, and state control, specifically over processes of asset creation, valuation and securitisation. Similarly, the state plays a central role in the financialisation of nature, drawing on its regulatory capacity to make nature investable (Ouma, Johnson and Bigger, 2018). In financialised development projects state support is essential too. For example, in an index-based agricultural insurance scheme, Brooks (2016) finds the state supports the infrastructure of weather stations, product development, and takes on the role of reinsurer for catastrophic risks. In philanthrocapitalism, McGoey (2014) shows that government financial support is crucial to philanthropic initiatives. The role of public support in financialisation processes in development is so significant that Fine (2011) argues the state is reframed as a source of resources to support the private sector’s participation in delivering economic and social goods (cited in Brooks, 2016). In a development context, one of the most important roles of the state is to de-risk investment for institutional investors (with the help of MDBs) in order to ‘escort’ global finance to the Global South (Gabor, 2021; Carroll and Jarvis, 2014). In parallel, others have highlighted the state’s convening and enabling role through concepts of state capitalism and state-capital hybrids (Alami, Dixon and Mawdsley, 2021; Alami et al., 2022; Alami and Dixon, 2020; McGoey, 2014; Paudel, Rankin and Le Billon, 2020), where state capitalism refers to configurations of capitalism with a stronger role of the state as supporter, regulator, and owner of capital (Alami et al., 2022). In this argument, the place of the state has fundamentally changed in development, which now sees the state’s role “as promoter, supervisor, and owner of capital” (Alami, Dixon and Mawdsley, 2021: 1295).

The second analytical theme is how the financialisation of social and economic activity has de-politicising effects. However, the processes are deeply political (and a choice; see for example Gabor, 2021). Peck and Whiteside (2016: 238) argue the financialisation of urban governance has been “accompanied by a drift toward postdemocratic modes of technocratic management”, echoing literature on ‘scientific finance’, in which finance and its practices are depoliticised and rendered technical (see De Goede, 2005; Pryke, 2006). In the case of the financialisation of Thames Water, for example, Allen and Pryke (2013) argue the politics of the financial arrangements were ‘ring-fenced’ and left untouched. Relatedly, Rosenman (2019a) shows how social finance dis-embeds social problems from the political system. Decision-making in social finance investments is based on neutral metrics to measure social value, which legitimises new forms of governance through social finance instruments (Mitchell, 2016). In a climate finance context, Bracking (2015a) shows how governmentalities emerged in the Green Climate Fund which may be creating an anti-politics in the governance of the environment, limiting open political and democratic deliberation (2015a). These findings are important, particularly in a development context, because the processes and mechanisms of financialisation are not apolitical. For example, in an analysis of financial inclusion as a development strategy, Soederberg (2013) points out that while asset backed securitisation is seemingly technical and therefore seemingly apolitical, the securitisation of development is characterised by unequal power relations and is socially costly for the poor.

This de-politicisation is further supported by several other dynamics of financialisation which limit democratic control and accountability. Drawing on Scharpf’s (1999) input and output legitimacy framework of democracy, two general dynamics can summarise the way financialisation limits democratic legitimacy (Nölke, 2020). First, political options are constrained by financial interests and logics (on the output side) (Nölke, 2020). The state is not only a key actor in financialisation processes, but its decision-making is also increasingly oriented towards (or subordinated to) financial market interests (Weber, 2010; Dowling, 2017; Lake, 2015) and financialised investment rationalities pervade decision-making, such as the logic of leverage and investment across philanthropy and government (Mitchell and Sparke, 2016; Kumar and Brooks, 2021). Social policy and local democratic control are constrained by a range of financial market imperatives, including for example bondholder-value disciplines, the logic of derivatives, and the demands of credit rating agencies which govern access to debt finance (Bryan and Rafferty, 2014; Peck and Whiteside, 2016; Omstedt, 2020). These interests and logics narrow possibilities for change and foreclose future actions (Bigger and Millington, 2020). Second, financialisation shifts decision-making power to non-elected actors (on the input side) (Nölke, 2020). Decisions on political issues are privatised and financialised (Bracking, 2012). In an analysis of nature-based industries, Bracking (2012) argues

financialisation has agency and is a technology of power to favour financial measures and logics in decision-making, and secure decisions which favour money-holders. In Bayliss's (2014) examination of the financialisation of water, private financial actors gain increased influence and power over social policy. Decision-making power is shifted to financial investors in both social policy and climate governance (Rosenman, 2019a; Lake, 2015; Bracking and Leffel, 2021; Sovacool et al., 2019), where financial actors are positioned as experts (Rosenman, 2019b). Erikson and Johnson describe how decisions are "black-boxed outside of public oversight" (2020: 530). This results in weakened public accountability and transparency (Bracking and Leffel, 2021). In addition to these two dynamics, democratic control and scrutiny is further limited by the often complex and opaque operations of financialised schemes (Peck and Whiteside, 2016; Erikson, 2019). IDF reflects many of these political concerns, in this case in relation to the accountability and transparency of foreign aid. There is significantly more discussion in Chapter 7 on the politics of development more generally, beyond financialisation, which frames that chapter's analysis of the politics of IDF.

A third, important line of enquiry relates to the dynamics of profit and accumulation which characterise financialisation. Financial rewards are distributed to financial investors (Allen and Pryke, 2013) and to financial intermediaries (Folkman et al., 2007), often supported by public funds, through a range of financial mechanisms. The particular mechanism and its market norms are important, as they shape the nature of projects, including their social, political, and economic outcomes (Baker, 2015). In financialised contexts, financial resources are consistently transferred to financial actors. In water utilities, Allen and Pryke (2013) find value is redistributed to investors at the expense of households through restructuring debt and dividend payments exceeding profits; while Paudel, Rankin and Le Billon (2020) show how disaster financialisation in post-earthquake reconstruction in Nepal created lucrative opportunities for capital accumulation for both banks and more informal financial agents such as moneylenders. A common pattern which emerges is a transfer of financial resources from public to private actors. In the context of social finance schemes, for example, Dowling (2017) finds that the financialisation of the welfare state through social impact bonds results in the transfer of wealth from public to private investors as interest payments. Similarly, in philanthropic initiatives, McGoey (2014) finds government spending supports the private sector to achieve market-based returns. In weather insurance schemes in the development sector, Johnson (2021a) shows how transfers of subsidies are made from donors and governments to reinsurers. Furthermore, in impact investing in housing in San Francisco, Rosenman (2019a) finds that public subsidies in the form of federal tax credits, and the subordination of public assets to private debt support impact investors' returns and protect them from risk. Similarly, in green finance, Bigger and Millington (2020) find that

financialisation deepens inequality, and also that environmental and financial risk are shifted onto poor and racialised urban populations. In a study of the financialisation of global health, Stein (2021) finds that COVAX¹⁵ ends up constituting a risk itself. More broadly, financialisation processes in developing countries increase financial instability (Bonizzi, 2013). In each case, investors and financial intermediaries do not just reap (sometimes substantial) profits, but change the underlying landscape of accumulation, risk, and reward in doing so. While these findings are aligned in demonstrating that private and financial actors profit, few comprehensively quantify how much is being accumulated and peeled off by different actors¹⁶ (though see for example Erikson, 2019; Weber, 2010), something this PhD reveals in Chapter 6.

The fourth analytical theme, in the context of this changing landscape, is the social costs of financialisation, an important motivation for examining financialisation in a development context. In a detailed analysis of renewable energy projects in South Africa, Baker (2015) reveals that there is a tension between commercial demands and social goals of community ownership and economic development. Rosenman (2019a) finds that financialised housing reproduces poverty rather than reducing it. Similarly, Brooks (2016) shows how the financialisation of the agri-food sector and an agricultural development intervention actually induce food insecurity, ultimately undermining smallholder farmers. Instead, as the global agri-food system is reoriented towards financial actors and logics, the main beneficiaries are agri-business corporations (Brooks, 2016). Going further, Bayliss (2014: 292) argues that, given the profit motive, “financialization is incompatible with social objectives” in the case of water delivery. These cases identify a range of different social costs connected to financialisation processes, which highlights the importance of analysis which examines the economic, social, and political consequences of financialisation.

The fifth theme is how finance or financialisation shapes uneven economic geographies. Financialisation is a profoundly spatial phenomenon (French, Leyshon and Wainwright, 2011). Capital markets and financial flows are “grounded in, produced by and thoroughly entangled

¹⁵ COVAX is short for COVID-19 Vaccines Global Access, an initiative aimed at supporting equitable access to COVID-19 vaccines.

¹⁶ There are some papers which provide estimates of the resources transferred. Erikson (2019) provides important figures on the Pandemic Emergency Facility, including the face value, payout structure, interest rates, returns generated for reinsurers, and actual payments made. Weber (2010) is also an exception, providing some key figures: for example, an estimate of the interest rates the city of Chicago paid on its bonds and the costs of refinancing the notes. Furthermore, there are figures on the size of key public spending transactions, budgets, and assets. Baker (2015) points to approximate levels of return for some of the financing mechanisms in the study: for example, the approximate cost of debt finance and returns on equity investment.

with wider economic geographies beyond the international financial system” (Hall, 2013: 286). Financialisation connects different actors, spaces and places to uneven development, and strengthens the fundamental role of finance in explaining their unfolding economic geographies (Pike and Pollard, 2010). Hall (2012) argues that the intersection between finance and economic geographies should be understood in relational terms, whereby topological flows of money and finance intersect with established geographical spaces (like households or cities), creating new economic geographies. For example, geography is shaped by the interplay between, on the one hand, the aggregation of assets in particular places and, on the other, the spoils of speculation concentrated in cities (Leyshon and Thrift, 2007). For example, in weather insurance in a development context, Johnson (2022) shows how material resources are transferred from the Global South to Northern financial institutions. Furthermore, risk and volatility are more embedded in the economic geographies of the financial system (Pike and Pollard, 2010). In these ways, finance is seen as a driver of restructuring across space which shapes economic geographies in a particularly uneven form (Harvey, 2018 [1982], 2004; Smith, 2010 [1984]; Corbridge, Martin and Thrift, 1994). Fields (2017b) and Christophers (2015) emphasise financialisation’s unevenness. In this context, financialisation research can often be focussed at the national or urban scale. However, the global, which is where finance capital circulates, is also a critical scale of enquiry (Christophers, 2012), and research needs to look beyond the traditional centres of global finance (Hall, 2012). Furthermore, financialisation is a situated process that must be understood in its context (Fields, 2017b). These five analytical themes developed from the financialisation literature are starting points for the PhD’s analysis, in particular Chapter 6 and Chapter 7 on the economic and political consequences of financialisation.

2.8 Conclusion: Innovative development finance emerges at the intersection of the private finance turn in development and the financialisation of development

Over the last two decades there has been a significant transformation in development agendas ‘beyond aid’. The turn to private finance in development is this PhD’s first conceptual building block. There was an increase in political attention to financing for development in the MDG era. Dominant development agendas saw not only an important role for the private sector in development but also a role in contributing to financing for development. While ODA was at the forefront of discussions, the 2002 Monterrey Consensus recognised all forms of financing in support of development, including from private sources. In the SDG era, development finance agendas further reinforced and significantly increased the role of private

finance. The 2015 Addis Agenda captures this turn to private finance, explicitly supporting its contribution to development finance to fill a ‘financing gap’ and marking a shift away from the centrality of ODA. The influential ‘from billions to trillions’ refrain captures these important shifts in development finance moving from ‘billions’ in ODA to ‘trillions’ in all kinds of finance, where the role of ODA became to leverage and catalyse private finance. This turn was further supported by the Maximising Finance for Development agenda which explicitly prioritises private finance over other sources. The turn to private finance in development is related to the financialisation of development.

The second conceptual building block is financialisation. This research is concerned with the increased social and spatial reach of finance into international development. Financialisation is understood as the growing influence of financial markets, financial actors, and financial processes in economic and political life (Pike and Pollard, 2010). This PhD draws on a mechanism-oriented conceptualisation of financialisation, focusing its analysis on the ‘so what?’ of financialisation, specifically economic, social, and political consequences. Drawing on the financialisation literature, this chapter developed five analytical themes as starting points for later analysis: the central role of the state in financialisation, de-politicising effects and how financialisation limits democratic control and accountability, the dynamics of profit and accumulation which characterise financialisation, the wide range of associated social costs, and its connection with uneven economic geographies.

‘Innovative development finance’ emerges at the intersection of the private finance turn in development and the financialisation of development. As we will see in Chapter 5, the idea of IDF emerged in the early 2000s in the context of the MDG era. By the late 2000s, the concept had become reality, and became an established element of financing for development agendas. Later, in the SDG era, it became a core pillar of the post-2015 development finance landscape. Situated within the development landscape presented in this chapter, Chapter 5 examines the emergence of IDF, analyses it conceptually, and connects it to the financialisation of development.

Chapter 3. Follow the Money

3.1 Introduction

This chapter is organised in two distinct parts. The first is on follow the money, a significant methodological contribution of the PhD. This part includes an introduction to the idea of ‘follow the money’; a literature review of follow the thing and, most importantly, money; sections on how to follow the money and why follow the money; and some notes of caution on what following money cannot achieve. The second part is a short set of reflections on the wider research methods and process.

3.2 Follow the money¹⁷

3.2.1 Introduction: Follow the money

Follow the money, a catchphrase from the 1976 film ‘All the President’s Men’ about the Watergate scandal, is normally associated with crime and investigative journalism. It might conjure images of fighting tax avoidance and tax evasion (see the Tax Justice Network’s work), or accusations of political corruption, for example in 2016 when Trump used the phrase to attack Clinton and then, a few years later, the approach was used to uncover the Trump Foundation’s financial crimes. In other areas, the concept is used for promoting transparency and accountability, for example tracking aid spending (see the UK’s Development Tracker¹⁸). In academia, however, the approach is comparatively under-developed (with a notable exception in Christophers, 2011).

In geography, *follow the thing* has been used successfully to follow a range of things, from papayas (Cook, 2004) to data (Akbari, 2020), via firms (Brill and Özogul, 2021) and policies (Peck and Theodore, 2012; Wood, 2014). The methodology has its origins in the work of Harvey (1990), who argues researchers have to get behind the veil of the market, memorably giving the example of how “grapes that sit upon the supermarket shelves are mute; we cannot see the fingerprints of exploitation upon them or tell immediately what part of the world they

¹⁷ The sections in this chapter on Follow the Money are also the subject of a published paper in *Environment and Planning A: Economy and Space* entitled “Follow the money”.

¹⁸ The Department for International Development’s Development Tracker is at devtracker.dfid.gov.uk

are from” (1990: 423); and Appadurai (1986) who argues commodities have social and political lives. In this context, methodologically, there is a compelling case to follow the money. In a persuasive provocation, Christophers (2011) presents a theoretical discussion of follow the money. However, it is empirically challenging, and I could not find a single paper in geography or a cognate discipline adopting a follow the money methodology to actually *follow* money (in detail and in full). In academia more widely, a small number of studies draw on follow the money to differing extents, ranging from simply using the expression as a title to engaging with ‘following’ as a methodology. Often these examine spending in medicine, but there are also a few examples in the social sciences such as Erikson’s (2015) excellent study in global health, or in education (Reckhow, 2013), international relations (Graham, 2017), and economics (Coon and Neumann, 2018).

In this chapter, I present a follow the money methodology (see Hughes-McLure, 2022), drawing on my research in which I have followed the circulation and distribution of money using quantitative methods to do critical financial analysis across the three case studies in this PhD (introduced in Chapter 4). This methodology is original in applying a ‘follow the thing’ logic, which has been explored in a number of geographical studies, to money empirically, and in developing an approach to follow all of the flows of money through a case study, for every year, at a granular level of detail (rather than a single transaction, a snapshot, or at a general level with limited detail). I argue that follow the money is an informative methodology, making the case for adopting the approach through five themes. First, following money provides a robust and detailed empirical evidence base, offering a clear and thorough understanding of precisely what’s going on financially in a case study. Second, empirically, the methodology delivers a precise account of the material (re)distribution of resources, revealing who benefits or loses, by how much, and where. Third, theoretically, the methodology contributes to understanding social and economic relations which support and are created by money’s circulation. Fourth, following money contributes to analysing financialisation, specifically its mechanisms and consequences. Finally, the approach contributes to research on financial risk.

The follow the money part of this chapter is organised as follows. The next section introduces follow the thing and unpacks what money is as the ‘thing’ to be followed. The subsequent section, on how to follow money, addresses some special considerations for following money and presents my step-by-step approach. The next section, why follow the money, makes the case for adopting the approach through five themes, outlining the contributions the methodology can make to geography and related disciplines. The penultimate section offers

some notes of caution reflecting on what can't be achieved by following money, and the final section concludes.

3.2.2 Follow the thing and money

"Views on money are as difficult to describe as are shifting clouds"
(Schumpeter quoted in Gilbert, 2005: 358)

The 'duck' theory of money: "i.e. if it waddles like money and quacks like money, then it must be money"
(Bryan and Rafferty, 2007: 140)

Building on Marx's concept of commodity fetishism, which discusses how markets hide social information and relations, Harvey argues researchers have to "get behind the veil, the fetishism of the market and the commodity, in order to tell the full story of social reproduction" (1990: 423). To examine social and economic relations, researchers must go further than the information the market itself reveals (Harvey, 1990). Relatedly, Appadurai (1986) argues commodities, like people, have social lives, and calls attention to the politics in the social life of commodities. To reveal the social context of things, from a methodological perspective, "we have to follow the things themselves" (Appadurai, 1986: 5), in particular their trajectories.

In Harvey's (1990) compelling case to follow the thing, he argues commodity fetishism conceals the material conditions of the commodity's origination and circulation. This veiling of a commodity's social and spatial background is enabled by money, because it allows the separation of purchases and sales in space and time or, in other words, for commodities' trajectories to expand across space and time (Harvey, 2018 [1982]). Therefore, for the case of money, tracing its lifecourse reveals and allows analysis of the social and economic relations supporting and created by money's origination and circulation (Harvey, 1990). Following money as the 'thing' is particularly important for several reasons (see Christophers, 2011). First, from a Marxist perspective, money is the 'god of commodities' and the climax of fetishism; second, money's creation and circulation are embedded in social and economic relations; third, wealth redistribution is inevitably bound up with money's circulation; and finally, in the light of financialisation, money's role is becoming more important (Christophers, 2011).

To follow money as the ‘thing’, we first have to explore what it is, taking heed of Schumpeter’s observation that “views on money are as difficult to describe as are shifting clouds” (in Gilbert, 2005: 358). The aim of this chapter is not to resolve the debates about money. Instead, I present a discussion of what money is for the purposes of following, touching on classical functions theory, Marx’s concept of money as capital, the social relations of money, geography and sociology, and network theories of money. For further discussion of the ontology and meaning of money, beyond the scope of this chapter, see Gilbert’s (2005) helpful review (or see also Fine and Lapavitsas, 2000; Ingham, 1996, 2001; Lapavitsas, 2003; Leyshon and Thrift, 1997; Zelizer, 1989, 2000).

Unlike a papaya (in Cook, 2004), money can be many objects, ranging from shells to data to gold coins. However, it is not money’s materiality which is its defining characteristic, but its economic and social role. A classical functions theory of money argues money is something which functions as a: unit of account, medium of exchange, means of payment, store of value, and world money (medium for settlement across countries) (for variations see Fine and Saad-Filho, 2010; Gilbert, 2005; Lapavitsas, 2003; Leyshon and Thrift, 1997). Beyond these economic functions, money also performs broader social functions, for example social and political power (Lapavitsas, 2003). In practice, to perform these economic and social functions, money takes a seemingly endless variety of forms such as gold, metallic coins, banknotes, bank deposits, bank and other accounts, and credit instruments – this last form represents the majority of modern capitalist money (Lapavitsas, 2003), and holds a high potential for following.

Conceptually, Marx makes a distinction between money as money and money as capital (Fine and Saad-Filho, 2010). Money as money summarises market transactions or simple exchange and leads to the redistribution of monetary wealth. In contrast, money acts as capital when it is employed in the production of surplus value, in other words in the circuit of capital¹⁹ (Fine and Saad-Filho, 2010), which requires the expansion of wealth. Whilst the analytical distinction is clear, in practice it is complex. Money markets are indifferent to the sources and purposes of money as long as borrowers pay interest and return the capital (Fine, 2013). In other words,

¹⁹ In the literature in this tradition, market transactions involving money as money are often summarised as $C - M - C$ where one commodity (C) is exchanged for money (M) which is later exchanged for another commodity (C). In the case of money as capital, the circuit of capital can be summarised as $M - C \dots P \dots C' - M'$, or simply $M - M'$. Money capital (M) is used to buy commodity inputs (C), production takes place ($\dots P \dots$) leading to the sale of commodity outputs with a higher value than the inputs (C'), and then these outputs are sold for more money capital (M'). M is less than M' because surplus value is created in the production process. For more detail, see Fine and Saad-Filho (2010).

money markets hide the distinction between money as money and money as capital, so both appear to be capital that gives a rate of return as interest. The concept of loanable money capital therefore captures money markets as a whole, where money as money and money as capital come together.

This money as capital approach provides an understanding of the social relations of money. More specifically, an appreciation of money's social and cultural embeddedness, and a critique of money's homogenising tendencies and centrality in capitalist society (Gilbert, 2005). Marx analyses money's role in the homogenisation and alienation of modern society. He argues that, in acting as the universal equivalent, such that all values are made commensurate, money comes to represent labour power and functions to remove the distinction between subjects and objects, quantity and quality, and annihilates space over time (Gilbert, 2005 [Marx, 1867]). Social relations between people are transformed into material relations between things. Similarly, Simmel and Weber both argue money is a key mechanism in the abstraction of social relations and rationalisation of social life (Zelizer, 1989). Relatedly, Ingham (1996) argues money is a social relation itself. In that sense, money can be conceptualised as a structure of social relations, not just as being socially produced (Ingham, 1996). It is money's social relations, its social embeddedness, and central role in society that make it so interesting to follow and so theoretically informative in the light of Harvey's (1990) call to see behind the veil of the market – a point I return to on analysing social and economic relations.

Money is not just an economy but also a geography, sociology, and anthropology (Leyshon and Thrift, 1997). Alternative accounts of money have developed from critiques of political economy and traditional social theory perspectives. Zelizer (1988, 1989, 1994) challenges these theories as rationalistic, structural accounts of economic life that make generalisations about money, arguing more attention is needed to social relations and social values in all areas of economic life. Modern money is complex and heterogenous – there is not 'one money' (Zelizer, 2000), and non-economic spheres are influential – money is not limited to the market economy, and social structures set limits on money's power (Zelizer in Leyshon, 1997). This sociological theory, however, can be criticised for being too specific and not proposing a general theory of money (Fine and Lapavistas, 2000; Ingham, 2001).

Social network theories of money demonstrate money's embeddedness in the social, the role of individuals and institutions in the circulation of money, the necessity of information and trust, and recognise that individuals and exchange are context dependent (Gilbert, 2005). Monetary network approaches can address the problems of accounts of money as being either too

specific and contextual or too generalised, taking money to be unchanging through time and over space (Dodd, 1994; in Leyshon, 1997). However, these approaches miss the object dimension of money, or the constituent role of things in the social network (Gilbert, 2005). Leyshon and Thrift (1997) draw on actor-network theory (see Callon, 1991; Latour, 1991; Law 1994) to address this point, arguing monetary networks are better seen as actor-networks. This approach draws attention to the existence of many actor-networks (Leyshon and Thrift, 1997), the contingent and never completely stable nature of actor-networks (Thrift, 1994), performativity (Leyshon and Thrift, 1997), and the continual work required (Leyshon, 1997).

Network theories provide a useful account of money in terms of social relations of credit, debt, and trust, and explicitly give a role to space as money circulates in particular times and places. However, these theories do not address the ways spaces are ordered and places shaped through the circulation of money (Gilbert, 2005). Many have made the case for a geography of money, highlighting the critical role of space (Corbridge, Martin and Thrift, 1994; Harvey, 2018 [1982]; Leyshon and Thrift, 1997; Martin and Pollard, 2017). Money is neither place-based nor place-less but both together (Harvey, 1989). Geography is constitutive of money and credit in terms of its forms, practices, and institutions which are contingent in space and time, and money allows social relations to extend across space and time (Leyshon and Thrift, 1997).

So, what is money? Money is something which, through many forms, functions as a unit of account, medium of exchange, means of payment, store of value, and world money, and can take on a broader phenomenon as money as capital, but it is not confined to the economic sphere. Money is embedded in social relations, grounded in material practices, and situated in time and space. In this thesis, money is understood as a material practice and a social relation. This is in line with Gilbert's call to pay attention to "money's 'indeterminacy', with its multiple functions and roles, with its paradoxical universality and particularity, with its global reach and its local effects" (2005: 361).

Having grappled conceptually with the question of what money as the thing to be followed is, the chapter now turns to the challenging and as yet unanswered question of *how* to follow the money. In his theoretical discussion, Christophers (2011) argues follow the thing methodology can be applied to money like other non-monetary commodities, although, as Gilbert (2011) notes, he provides little detail on how to do this following. Christophers (2011) suggests following credit as a potential solution to three unique challenges he identifies for following money: scope, distinguishability, and the temporal dimensions of credit money (I address these in more detail below). In a response on following credit, Gilbert (2011) problematises

the commodity model of money, arguing money is more than a commodity and highlighting the importance of alternative theories of money which foreground money as a social relation. According to Gilbert (2011), the three challenges Christophers (2011) identifies are some of the very aspects of money which make it different from a commodity. Furthermore, Gilbert (2011) suggests credit is more traceable because it may not be money, raising the possibility that a follow the money approach may only work for quasi-money (for example, credit) or commodified money (for example, credit securities).

The Christophers-Gilbert debate highlights how puzzling defining money is, and the implications that has for following it. Like Christophers (2011) and Gilbert (2011), the aim of this chapter is not to solve the ongoing discussions in the study of money (see for example the extensive debate in *Economy and Society*: Fine and Lapavitsas, 2000; Zelizer, 2000; Ingham, 2001; Lapavitsas, 2005; Gilbert, 2005; Dodd, 2005; Zelizer, 2005; Ingham, 2006; Bryan and Rafferty, 2007). Rather, the aspiration is to move forward follow the money as a methodology by making a proposal for an approach inspired by Christophers (2011) but that takes seriously Gilbert's (2011) contention that money is more than a commodity, without foreclosing other approaches.

Given the debates, it is worth explicitly clarifying what flows of money the approach presented in this chapter proposes to follow. Bonds, for example, feature in the case studies, however, they do not fulfil all the criteria outlined above for money. Consequently, they are variously considered not to be money, to be quasi-money, or credit money (a particular form of money), although they are often generally understood as money, in the spirit of Bryan and Rafferty's (2007: 140) 'duck' theory of money "i.e. if it waddles like money and quacks like money, then it must be money" (for more discussion, see for example Gilbert, 2005, 2011; Lapavitsas, 2003; Ingham, 2001; Bryan and Rafferty, 2007). The issue does not need to be fully resolved here for our purposes, regardless of which camp one subscribes to on bonds (or other financial instruments). The proposed approach is not to follow the bond itself, but rather the payments of money which arise in connection to it. The 'thing' that is followed is the flows of money connected to the bond notes. Specifically, for a typical bond, the main flows of money to be followed would be the transfer of bond issue proceeds, the payment of interest, and the repayment of the principal at redemption. These are transactions of money. Analogously, there are many other credit or financial instruments which do not meet the criteria of being money (in Gilbert's argument, quasi-money or commodified money), but which would be interesting case studies, where the approach can be adopted to follow the (related flows of actual) money. I argue that the approach addresses a methodological challenge of how to follow money, being attentive to an understanding of money as at once a material practice

and a social relation. However, it does not mean the approach escapes the possibility that it remains limited to the study of particular forms of money (a point to which I return later).

3.2.3 How to follow the money

My approach to following the money uses quantitative methods to do critical financial analysis, following Kass in arguing “financial information can provide powerful empirics that can expose inequity, be used to probe institutional norms and priorities, and provide insight into processes of neoliberalization and financialization” (2020: 112). Financial data is the ‘field site’ through which the (re)distribution of rewards and risks, and the economic and social relations of the case study are explored. As Kass notes, “there is always politics in finance and finance in politics” (2020: 107). Paralleling Kass (2020), who blends critical geography theory with public finance tools, I adopt a critical approach drawing on private finance techniques. This approach requires the knowledge and skills to understand and analyse financial statements, commercial models, and other financial data²⁰. In this section, I first discuss special considerations for following money as the thing, before outlining the step-by-step approach I developed to follow the money.

To begin, I draw on some of the many interesting empirical studies of follow the thing to address more precisely what I propose to follow. In following papayas (Cook, 2004) or hot pepper sauce (Cook and Harrison, 2007), the authors draw on interviews with actors who are representatives of a step in the commodity chain to build a picture of the whole chain. Other examples, such as bananas (Raynolds, 2003) or data (Akbari, 2020), adopt desk-based research methods to present a detailed overview of the commodity chain. Others, for example end-of life ships being made into furniture (Gregson et al., 2010) or flip flops (Knowles, 2014), use mixed methods relying on desk-based research for an overview of some parts of the chain and interviews for others. Although these papers use a range of data collection methods, they have in common the approach of tracing a generic commodity chain, in the sense of a generic object (i.e. the banana trade) rather than following a specific individual object (i.e. a particular

²⁰ In addition to critical analysis, unavoidably, a certain amount of accounting and finance knowledge is required as well as quantitative and modelling skills. The approach is accessible to anyone with an understanding of financial statements, or who is willing to learn the fundamentals of the main statements and how they relate to one another. These fundamentals are not too difficult and do not necessarily require specialised training or sophisticated knowledge at the level of relevant professional qualifications. For the basics, the Securities and Exchange Commission (SEC) (2007) writes, “If you can read a nutrition label or a baseball box score, you can learn to read basic financial statements. If you can follow a recipe or apply for a loan, you can learn basic accounting.”

banana's journey). To follow the money, this translates into building a picture of all the money flows in the chosen case study, not following the journey of an individual dollar.

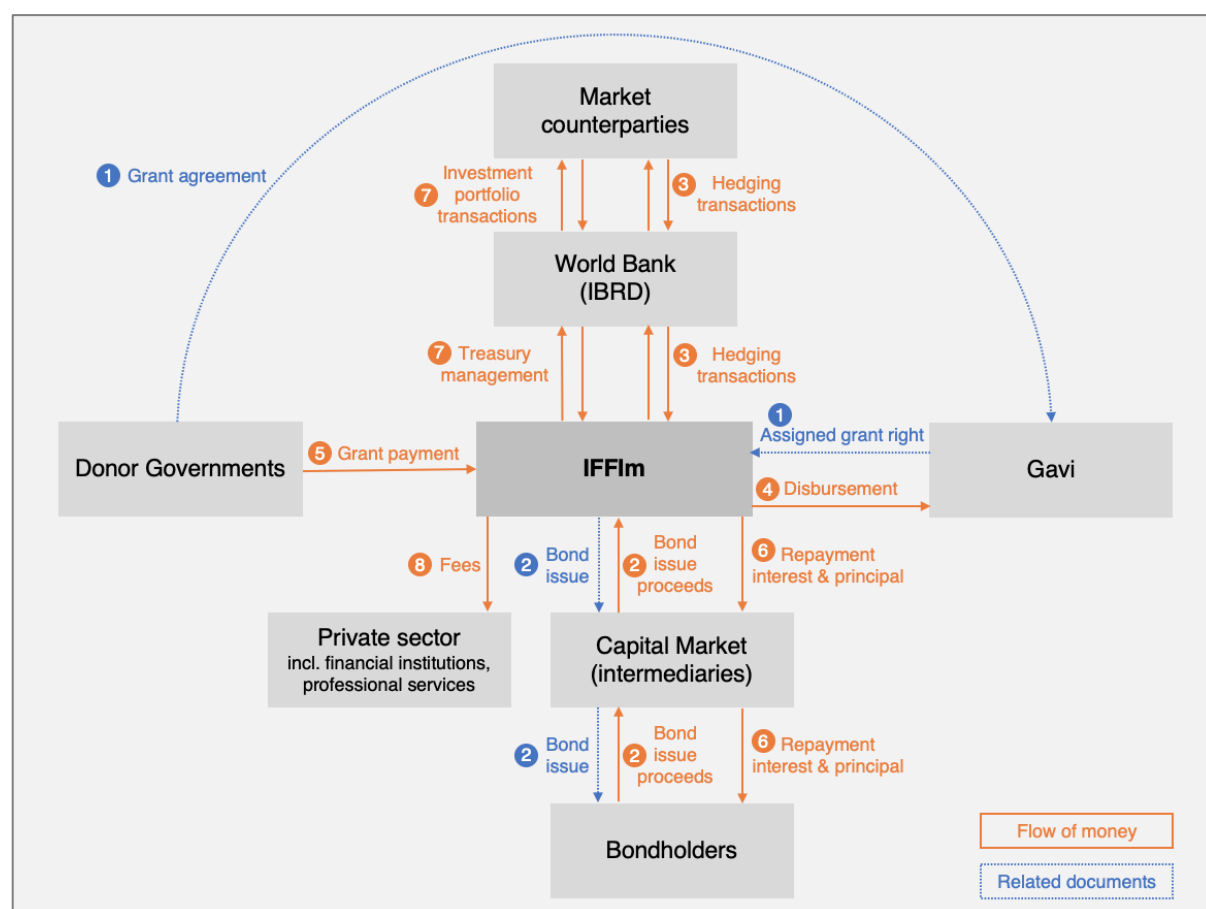
As noted above, Christophers (2011) identifies three unique challenges which need to be addressed for following money. Firstly, scope: where and when to start and end the following. Secondly, distinguishability: how and whether money can be tracked. Finally, the temporal dimensions of credit money, or the issue of money flowing backwards and forwards in time. I argue that following money in a particular form in a case study, rather than its more general form, presents solutions to these challenges. This approach is analogous to Cook (2004) following papayas, not the more general category of fruit or food. In my research for example, the IFFIm case involved following money in the form of development finance through a development project. For a particular case of money, a meaningful temporal frame can be found. In the case of development finance, for example, its creation as the giving of aid by a government can represent the start, rather than the origination of a more general money form at a central bank. Similarly, end points can be identified as, for example, the repayment of debt or final consumption (for example, purchasing a vaccine), limiting the potential for perpetual circulation of money more generally. The challenge of distinguishability can also be overcome. Drawing on empirical examples, I propose to build a picture of all the flows of money for a particular case study, not following a specific dollar through bank accounts – Cook (2004) does not follow a single papaya, even though it might be possible by looking at its colouring, bruises or weight, instead a picture is built of a more general papaya food chain from one of many farms in Jamaica to a consumer in a UK supermarket (which may be unconnected to that particular farm). Finally, in a development project with credit money, it is possible to follow money flowing backwards and forwards in time once that debt is repaid. In the event that it is not repaid within the timeframe of study, a reasonable flow of money can be estimated based on the credit's provisions for the time that has not yet elapsed.

Next, I outline the specific step-by-step approach I adopted to actually follow the money and, as part of that, I address data collection and data analysis methods. I hope the three steps will provide a guide of how to approach following the money empirically in a reasonably broad set of cases. However, it is worth noting at this stage, that these exact steps may need some adjustment to the particulars of a case study or sector, and there will be alternative approaches and methods which could be adopted to successfully follow the money.

The first step to follow the money is mapping the network of flows of money and actors. Identifying the actors and the money flows which connect them is, in a sense, what allows the following or quantifying of those flows of money at a later stage. Each actor can also be

connected to space. Figure 7 shows an example of a map of the flow of money for the IFFIm case (we will see this again in Chapter 4). This sort of mapping, or something similar, has been done by others, drawing on a range of methods (see for example maps in Rosenman, 2019a, of a social impact investment project in affordable housing; Weber, 2010, of tax increment financing notes, a financial instrument; or Johnson, 2014, of a typical catastrophe bond issuance). Given the goal of following money, I used careful documentary analysis to source the information to create a comprehensive map of the flows of money which constitute the case study of interest. This means first identifying the various actors involved; second, drawing out the financial connections between them; third, identifying the precise financial instruments which form those connections; and, fourth, the specific flows of money involved for those instruments. For example, there might be a single flow of money between two actors for a simple fee payment (see number 8 in Figure 7). Alternatively, there may be several flows of money for a more complex financial instrument, such as a bond, which involves the transfer of bond issue proceeds, interest payments, and the repayment of the principal (see numbers 2 and 6 in Figure 7). The specific documentary sources will vary significantly depending on the case; however, some starting points I used were project websites, brochures, investor presentations, prospectuses, or other project documentation, and press releases and other media coverage. Later, based on the detailed financial information collected and analysed in steps two and three, the map can be refined in an iterative process to reach the final picture of flows and actors.

Figure 7. Example map of flow of money for IFFIm



The mapping process is key not only to create clarity to identify the money to follow, but also to determine the scope of the study. It defines a starting point for following money. For example, for IFFIm, the point where the development finance money originates: when donor governments make a binding promise of future money in the form of a grant agreement. Similarly, it defines a conceptual end point, in this case, when Gavi receives IFFIm's disbursement. From an IFFIm development finance perspective, the money is then spent by Gavi on vaccines, health infrastructure, wages or other goods and services. It is worth noting that the scope of the study could vary depending on the conceptual framing of the research. In addition to clarity and scope, the map itself is revealing, for example, pointing to the complexity (or not) of the network, the range of actors involved, the types of financial instruments connecting different actors, and the financial mechanisms which constitute the case study.

The second step is collecting and compiling financial data on these flows of money, in as much detail as possible. The critical source of data for following money is annual reports. The front

part, often called the *Report of the Directors or Trustees or Management Discussion and Analysis*, contains general information on the organisation, operational and financial review information on that year's activities, and can also include management analysis, discussion of trends, forecasts, and other useful supporting information. The second part consists of the *Financial Statements*, made up of the *Balance Sheet*, *Income Statement*, *Cash Flow Statement*, and *Notes to the Financial Statements*. Together, these statements contain the majority of the financial data for following money. Importantly, the data available in the financial statements is more detailed than the flows captured in the map in step one, allowing them to be broken down further into detailed line items. For those less familiar with annual reports, it is worth highlighting, here, the importance of carefully reviewing the *Notes to the Financial Statements*. These should not be disregarded as they are an integral part of the financial statements, which contain the most detailed financial data on the organisation's activities, often further breaking down line items featured in the three main statements. For example, the rather general 'expenses' item on the *Income Statement* is typically broken down into more detail. In the case of IFFIm's expenses, line items include expenditure on vaccines (via Gavi), legal fees, and bond interest expenses.

To complement financial statements, there are many other data sources for following money. These include filings with stock exchanges or regulators for data on listed financial instruments and companies; credit rating agency reports, which cover risk management policies and financial metrics; press releases for information on significant events; investor presentations, which often include financial information or a business case; public macroeconomic data, for example for information on interest rates or currency exchange rates; specialised financial market data reports, for example insurance industry publications; and, for more information on an organisations' activities, its own website, publications, statements and evaluation reports. The types of relevant documents available will vary depending on the case study. To illustrate an example, Table 1 outlines the data sources for the main flows of money in the IFFIm case. This shows that, with IFFIm, the bond documentation filed with the Luxembourg stock exchange, consisting of the *Offering Memorandum*, *Prospectus*, and *Pricing Supplements*, contained crucial information on donor government grant agreements and the vaccine bonds' interest rate terms. The data sources listed above were publicly available and can be collected through desktop research. This raw financial data can then be inputted and processed in excel (or similar), ready to be analysed in the next step. Additionally, in practice, this careful documentary review and analysis, whilst focused on gathering data to follow money, yields interesting information beyond financials. I found I uncovered significant information on, for example, the (political) history of how projects were set-up, or the narratives which justified important decisions that shaped the financial model.

Table 1. IFFIm – Main sources of data

Source	Data on flows of money	
(Note: numbers refer to flows in Figure 7; see also Appendix A)		
Financial statements	2	• Bond issue proceeds
	3	• Net swap payments
	4	• Disbursements to Gavi
	5	• Donor government grant payments
	6	• Bond interest payments
	6	• Bond redemption payments
	7	• Treasury manager fees
	7	• Investment portfolio purchases and sales
	7	• Income on investment portfolio
	8	• Consultancy fees
	8	• Legal fees
	8	• Auditor's fees
	8	• Bond issuance costs
	8	• Other financing costs related to bond issuance
		• Interest on cash at bank
		• Trustees' indemnity insurance premium
		• Trustees' meeting and travel expenses
		• Administrative support fee to the Gavi fund
Bond documentation	1	• Donor government grant agreements
	1	• Donor government grant conditionality
		• Bond nominal amounts and currencies
		• Bond issue prices
		• Bond issue dates and maturities
		• Bond redemption terms
		• Bond rates of interest
		• Bond interest payments structure and dates
		• Bond yields
		• Financial institutions e.g. arranger, manager, dealer etc

Credit rating agency reports	• Bond ratings • Risk management policies
Press releases	• Geography of bond investors • Type of institution of bond investors • Qualitative data e.g. investors, if oversubscribed etc
Public macroeconomic data	• LIBOR (London Inter-Bank Offered Rate) • Exchange rates

The third step is to do critical financial analysis to build a detailed model to follow all of the flows of money between all of the actors for the entire duration of the case study (see snapshots in Appendix B). Data analysis involves mapping the financial data collected in step two to line items for each actor in the model, covering all of the flows of money, keeping a granular level of detail (which goes beyond the map in step one). For this analysis, I set up a model in excel²¹. The first stage is to create the framework for the model to represent each actor over time (on an annual basis), and then, for each actor, to list all of the flows of money which they are involved in as line items. The second stage is to populate these line items drawing on the financial data collected in step two. The model is structured so that each money flow from an actor is captured as a negative entry, and each money flow to an actor is a positive mirrored entry (linked through formulas in excel). Table 2 provides an illustration of the model, showing the ‘following’ logic of mapping each flow of money from an actor (negative entry) to another actor (positive entry) such that the model columns net out at zero, or in other words the following circuit is closed, and the model rows capture the cumulative (re)distribution of money to or from an actor via a particular financial mechanism. For some line items this is a straightforward process, for example linking raw data from the financial statements on legal fees to a positive flow for the legal firm and a negative flow for their client. For other line items this is a more complex process requiring calculations, for example IFFIm’s net swap

²¹ Good practice in excel modelling which worked well for this follow the money approach, is to keep raw data, calculations, and outputs separate. In terms of architecture, this can be thought of as building the model in layers. The foundation layer is raw data or inputs. In practice, for following money, this was several excel sheets containing hard coded raw data from financial statements and other sources. The next layer is calculations or the ‘engine’. In practice, this could be one or more sheets which contain mainly formulas drawing on the raw data sheets. In the case of the follow the money model, this is the key analysis (illustrated in Table 2; see also snapshots in Appendix B), as it populates the financial data into a form which shows the flows of money which constitute the case study. This sometimes required other calculation sheets which sit between the raw data and the main follow the money analysis sheet. The final layer in the model’s architecture is outputs. These sheets draw from the main follow the money calculation sheet (‘engine’), and may include graphs, tables, key figures, or other calculations which form part of the findings of the follow the money analysis.

settlements to the World Bank. In the final model, each line item represents a particular flow of money, for example donor grant payments, bond issue proceeds, investment portfolio movements, bond issuance costs, or various professional services fees. This is detailed work – the IFFIm analysis, for example, took about four months to complete. Analysing this follow the money model reveals many interesting findings which are the focus of the next section.

Table 2. Illustration of an extract of the follow the money model for IFFIm

Actor	Line item	Total	2006	2007	2008	...
Donor governments	Grant payment	- 245	- 20	- 73	- 152	...
	...	...	...	...	...	...
IFFIm	Grant payment	+ 245	+ 20	+ 73	+ 152	...
	Bond issue proceeds	+ 1,213	+ 999	0	+ 214	...
	Bond interest	- 115	0	- 50	- 65	...
	Legal fees	- 3	- 1	- 1	- 1	...
	...	...	...	...	...	...
Capital markets	Bond purchase	- 1,213	- 999	0	- 214	...
	Bond interest	+ 115	0	+ 50	+ 65	...
	...	...	...	...	...	...
Lawyers	Legal fees	+ 3	+ 1	+ 1	+ 1	...
	...	...	...	...	...	...
...	...	...	...	...	...	...
Total		0	0	0	0	...

3.2.4 Why follow the money?

In this section, I make the case for adopting a follow the money approach through five themes²²: the empirical evidence base, (re)distribution of resources, social and economic relations, financialisation, and financial risk.

A follow the money methodology provides a *robust and detailed empirical evidence base* about the case study of interest. The methodology gives a clear and detailed picture of precisely what's going on financially, providing a wealth of information about the case study of interest. The approach delivers a precise and thorough understanding of the financing model, the network of actors, as well as insights on the scale of financial transactions which are only revealed through a meticulous quantitative approach. Here, I briefly outline highlights of the information revealed through the approach's three steps. First, the map of the flows of money reveals the network of actors involved, the formal nature of each actor's involvement, their significance for the wider network, the connections between actors, the complexity of the network, and where in space the flows are taking place. Second, compiling the financial data reveals detailed information on financial relations, the financial mechanisms involved, the terms and structure of financial instruments, and the nature of the financial relationships between actors. Third, the model of all of the flows of money provides a precise, quantitative view of the amounts of money flowing to or from each actor, the scale of each financial transaction or mechanism, how the amounts change over time, and the accumulation of wealth by each actor. The approach is particularly effective in cases where there is an element of uncovering needed to understand the financial model, network, or size of financial transactions.

Follow the money can be powerful for engagement and impact beyond academia by building on the detailed and robust evidence base. This evidence can contribute to greater transparency and accountability, policy making, and broader societal change. The evidence is likely to be highly impactful for several reasons. First, financial evidence is often more persuasive for certain groups of stakeholders, including activists holding power to account, policymakers working within an economic or financial frame, or shareholders and management for whom financial evidence is often paramount. Second, the quantitative nature of the analysis can convey the importance of findings in terms of scale and provides different, often complimentary, insights to qualitative methods or interviews. Third, it creates a significant degree of transparency and clarity, revealing or uncovering what's happening in the

²² As follow the money is an important contribution of this PhD, I want to present these themes together in one place. For now, these themes are outlined rather than illustrated immediately with empirical evidence to avoid repetition and overlap with research presented in later chapters. I, therefore, ask the reader for some patience, and hope they will find these themes operationalised throughout the empirical findings in Chapter 5, Chapter 6, and Chapter 7.

case study under scrutiny. Finally, the information is difficult to challenge or refute as it is grounded in published financial information.

Empirically, following money delivers a precise account of the material *(re)distribution of resources* as money circulates in a case study. The approach reveals who benefits or loses, by how much, and where for the case study of interest. The approach exactly and quantitatively reveals the organisations and people benefitting and losing, the exact amounts of value peeled off (as money) by each actor along money's lifecourse, and the spatial distribution of that value. By answering who benefits and/or loses, by how much, and where, follow the money methodology can make a valuable contribution to fields such as political economy, political ecology, or economic geography. The methodology's strength is providing a precise and quantitative answer to these questions. The approach is able to examine the (re)distribution of material resources, going beyond a descriptive view – it is able to say *how much*. The methodology is also able to analyse the (re)distribution of resources spatially, identifying where money is flowing by connecting each flow to an actor and place.

Theoretically, the methodology reveals the *social and economic relations* which support and are created by money's circulation. Follow the thing methodology allows research to see behind the 'veil' of the market to examine social and economic relations (Harvey, 1990). Following money, therefore, reveals and allows an examination of the social and economic relations which support and are shaped by the circulation of money in a case study of interest. For money as the thing, the approach can be applied to many areas of research, depending on the case study. For example, following money in the form of development finance in IFFIm informs a theoretical understanding of international development and global health. The methodology allows us to 'see' social and economic relations in development, which can then also be explored further through other methodologies. Beyond detailing networks of actors and financial instruments, as part of examining social and economic relations, the approach can be a springboard to inform a range of political issues, for example power of different actors and space as flows of money and actors are necessarily fixed in particular places.

The methodology can contribute to understanding *financialisation*. As Chapter 2 discussed, financialisation has been studied extensively in a range of disciplines. There is a significant body of interesting work addressing theoretical questions and examining empirical studies of actually existing financialisation (see for example Brooks, 2016; Weber, 2010; Allen and Pryke, 2013). However, critiques of this literature have emerged, pointing to limited engagement with the specific processes of financialisation or that studies present a descriptive 'financialisation of' account (see for example Aalbers, 2017; Christophers, 2015; Engelen,

2008; Mader, Mertens and Van Der Zwan, 2020; Ouma, 2015). In this context, follow the money can make a helpful contribution, specifically contributing to understanding the mechanisms and the consequences of financialisation. First, in focusing its lens on financial relations, instruments and transactions, the approach engages with the precise mechanisms of financialisation, including the specific mechanisms through which value as money is transferred. Alternatively, this can be conceptualised as part of getting in between M and M' (Ouma, 2015; see also Ouma, Johnson and Bigger, 2018). Second, by precisely and quantitatively measuring the material (re)distribution of resources following the circulation of money, the methodology analyses some of the economic and political consequences of financialisation, including the (re)distribution of profit and accumulation of wealth.

Finally, follow the money informs research on *financial risk* in society. Follow the money provides a clear and detailed understanding of the distribution of financial risks, uncovering who faces them and their significance. This can contribute to the broader study of risk in society and answers political questions around risk in fields like political economy or political ecology, such as what the risks are, who faces those risks, and how significant those risks are in terms of size. In examining the financial instruments, the follow the money approach provides information on the financial risk structure, the distribution of risks between the different actors, and an insight into the probabilities of the different risks materialising. In assessing the quantities of money involved for each flow of money, the approach provides information on the scale of these financial risks.

3.2.5 Notes of caution: What following money cannot achieve

Having laid out five themes which I argue make a compelling case for following the money, I now turn to three important notes of caution which address what cannot be achieved from the approach: the challenge of unfollowable segments, the more general case of 'money', and theoretical and empirical limits.

In adopting this chapter's follow the money approach, there will most likely be unfollowable segments in money's flows. While this can be an important limitation of the methodology depending on the scale of the challenge, unfollowable segments are also noteworthy findings in themselves. The story of why some segments or things are unfollowable is interesting as the approach reveals the gaps, their causes, and opens up analysis of what those gaps contribute to the chain (see Hulme, 2017). In the case of IFFIm, for example, I found two flows of money one step removed from IFFIm – transactions between the World Bank and market

counterparties – were, in part, unfollowable because they do not feature in a disaggregated way in those organisations' financial statements. These unfollowable flows showed the limitations of transparency once market counterparties, who are one step removed, become involved in development finance, raising questions of accountability in IDF models. Importantly, these unfollowable flows were not so significant that they meaningfully impacted my analysis. I had information that those flows of money were there, what the financial instruments were, who the actors were, and an approximate view of their scale – only information on the exact quantity was missing. In practice, lack of information on unfollowable flows can be mitigated or filled in through learning from other flows in scope, interviews, and a careful choice of case study based on data. Specifically, selecting cases such that the project or initiative or organisation under study appears sufficiently in financial statements, in other words published at a sufficiently disaggregated level or even on a standalone basis.

What about money? Adopting the follow the money approach presented in this chapter may be akin to the study of a case or a form of money rather than a more general money. Returning to the understanding of money in this PhD as a material practice and a social relation, money can take on many forms. In the context of the case studies in this research, for example, where they feature bonds, following the money informs an understanding of credit money, the majority of money in capitalism (Lapavistas, 2003). Perhaps following a more general case of money would be starting from its origination at a central bank and following its circulation through financial institutions, corporations, and households, potentially indefinitely. Or that too may remain a particular form of money. Indeed, Zelizer (2000) argues against the very concept of 'money in general', and Gilbert (2011) cautions that following a universal form of money may be impossible. Alternatively, perhaps applying this methodology to IFFIm, for example, informs an understanding of the material (re)distribution of wealth in development projects, and the social and economic relations of development finance and global health. In that sense, the thing being followed was money in the specific form of development finance. This conceptual viewpoint links to the study of finance, a different and broader analytical concept to money. Indeed, critical for the methodology proposed in this paper is data from annual reports and financial statements, so it is applicable to cases where money flows in a form of finance such that it appears in financial reports. This discussion returns to and highlights the challenging task of defining money, and the consequences for what forms of money can be studied through a follow the money methodology.

As noted earlier, the aim of this chapter is not to resolve open debates in the study of money; it remains to move forward the idea of following money by proposing a feasible approach. Depending on one's position on the literature on money, this proposed approach may be

limited to the study of certain (more or less broad) forms of money, such as credit money or a different analytical framework of finance. Nevertheless, the methodology remains a practical approach for following money. I argue that, as in other areas of academic research, following money in various forms as case studies can contribute to our understanding of the general case, and, for the challenging and puzzling ‘thing’ that money is, makes research practically feasible. The call for future research is, therefore, to use a follow the money approach to examine more cases of money in order to build up a better understanding of the more general thing: money. As money is a special ‘thing’ to follow in that it is tricky to define and ubiquitous, such research is particularly interesting because it contributes to, at best, the study of money and, at a minimum, the area of research within which the case study fits. In this research it is international development, but it could have been urban geography, conservation, or inequality, among others.

Finally, it is worth explicitly noting that follow the money has theoretical and empirical limits. There are limits to the scope of theoretical areas and conceptual questions it can answer. For example, following the money can contribute to understanding the financialisation of development or global health, but it probably cannot substantively contribute to studying the performativity of global health statistics (Erikson, 2012) or the informal ‘hustle’ economy (Thieme, 2015, 2018). There are also certain questions which the approach can only partially help understand, such as how or why certain decisions were made, and other questions it sheds little to no light on, such as how the targeted beneficiaries felt about a development intervention. Furthermore, there are empirical limits to the approach. While it provides an excellent understanding of IDF projects or species bonds (see Hughes-McLure, 2022), it is unlikely to be helpful in the study of participatory development projects (Mosse, 1994; Cooke and Kothari, 2001) or conservation surveillance (Sandbrook, Luque-Lora and Adams, 2018). Additionally, there are practical data limits. While follow the money is not limited to publicly available information, in practice the proposed approach here is limited by what information is made public, or not (see also Barry, 2013). Alongside follow the money, therefore, there is an important role for other research methodologies. In this PhD, in particular for Chapter 5, in a supporting role to follow the money, I also carried out documentary analysis, and triangulated some findings through attending seminars and conferences (mostly online) and conducting a small number of interview discussions.

3.2.6 Conclusion: Follow the money

Follow the money is a powerful methodology which can make important contributions to current debates in geography. Taking up the challenge raised by Christophers (2011) who presents a compelling theoretical case, I have followed the circulation and distribution of money in my PhD research. In this chapter, I presented my original follow the money approach which uses quantitative methods to do critical financial analysis (on this, see also Kass, 2020). I also made the case for adopting the approach through five themes. The first, that following the money provides a robust and detailed empirical evidence base is both simple and powerful. The methodology reveals a wealth of information about a case study, providing a clear understanding of what's happening financially and shining a light on details which might otherwise be concealed or overlooked. This evidence base can provide a powerful platform to engage outside academia and create impact. The second theme addresses the approach's most significant empirical contribution; follow the money provides a precise account of the material (re)distribution of resources, revealing who benefits or loses, by how much, and where. The third theme is analysing social and economic relations for a case study, or seeing behind the 'veil' of the market, including relations in space as money has a geography. In theme four, I argue the methodology is particularly valuable for contributing to the study of financialisation through a detailed and precise engagement with the specific mechanisms, processes, and complexities of financialisation as well as addressing its economic and political consequences quantitatively. Theme five, on financial risk, captures the methodology's contribution to the study of risk in society through analysing the types of risks, who faces them, and their significance in terms of scale and probability. The empirical research presented in Chapter 5, Chapter 6, and Chapter 7 operationalises and demonstrates these themes.

3.3 Reflections on the research methods and process

In this section I turn to reflections on the wider research methods and process around positionality, hope and disappointment, and the effects of the COVID-19 pandemic.

My position inevitably affects my research, and I needed to continuously acknowledge and manage this limitation. Given the research methods revolved around critical financial analysis (at my desk), one of the most important dimensions to navigate was my position as a corporate world 'insider', and to a lesser extent finance industry 'insider', but development sector 'outsider'. I spent about five years as a consultant at the Boston Consulting Group and did an MBA²³ at Insead, which gave me the accounting and finance knowledge and skills to be able

²³ Master of Business Administration.

to develop my follow the money approach. Practically, however, one consequence of this positionality was needing to carefully balance drawing on private finance tools and techniques whilst maintaining a critical analytical approach to those methods; for example, not taking for granted the meaning of familiar line items on financial statements or standard financial calculations and techniques. This meant constantly asking myself questions and thinking through each step in the data analysis. This process was made easier by adopting a theoretically informed perspective on money, which required critically thinking through all the different flows of money in the analysis, departing from a simple conventional understanding of financial statements and what is and isn't money, to strike a balance close to Bryan and Rafferty's 'duck' theory (2007).

Another challenge to navigate during the research was the alternating feelings of hope or excitement and disappointment. In the context of constrained funding and a political landscape averse to ODA spending in many DAC countries, much-hyped innovative financing mechanisms hold potential and represent a degree of optimism. Similarly, that a wider range of actors in the private sector might contribute to social and environmental goals gives hope. I wanted to critically analyse this phenomenon of IDF, without losing sight of this hope and the potential positives, something which I have found can be lacking in critical human geography research. Unfortunately, the research revealed much of the promise of these projects is unfulfilled, and there are many economic and political costs (see Chapter 6 and Chapter 7). Managing this hope and disappointment has been emotionally challenging. Furthermore, it has required work to keep both the positives and negatives in perspective, to stay alert to potential promise amidst critique, and actively think about alternative proposals which could represent improvements (which I touch on in Chapter 8).

A final challenge worth reflecting on is the effects of the COVID-19 pandemic. The first lockdown in the UK came halfway through my first year and more were to follow. Restrictions were still causing significant disruption almost two years later when I first wrote this section, although they had eased substantially by the second draft stage late in my third year. Inevitably, this significantly affected my research project. Practically, for example, it prevented planned travel for fieldwork, including site visits to the offices of two of the case studies, and disrupted in-person meetings, including interviews and conferences. In the end, fortunately, this wasn't a disaster for my project because I was able to focus on and dedicate more time to developing and pursuing my follow the money approach. While it was always part of my plan, it became a cornerstone of the PhD as it turned out to be a fruitful and powerful methodology for examining IDF. Finally, in a small silver lining, the pandemic created new spaces for research. I was able to access many online seminars and conferences which would

have been impossible to attend for environmental and cost reasons, because I would not have had access, or as they would simply not have been held. These were valuable events for understanding the broader development cooperation landscape, beyond my case studies, triangulating findings, and keeping up to date with key trends and ideas which influential actors or organisations were working on.

Chapter 4. Case studies

4.1 Introduction

This chapter presents my approach to case study selection and introduces the three case studies that form the empirical core of this thesis: the International Finance Facility for Immunisation (IFFIm), the Caribbean Catastrophe Risk Insurance Facility (CCRIF), and The Currency Exchange fund (TCX). All three case studies are emblematic examples of innovative development finance. They also represent clear cases of the financialisation of both development and their respective sectors. Each case study introduction presents the IDF intervention and its aims, situates it within development and its sector's context, and introduces key figures, the map of the flow of money, and the financial model.

4.2 Case study selection

I have constructed an analytical framework to explore IDF, based on the conceptual analysis presented in Chapter 5. Here, I simply outline the analytical framework to draw on it for the purposes of case study selection. The framework's key dimensions are: a set of core development claims which characterise IDF, and a set of financial instruments which constitute IDF (see Figure 8; see also Chapter 5). Although any framework like this remains necessarily partial and simplified, I argue, at their intersection in a matrix, these two dimensions do reasonably well at describing the range of financial models which make up the IDF landscape.

Figure 8. Analytical framework: Landscape of illustrative innovative development finance financial models



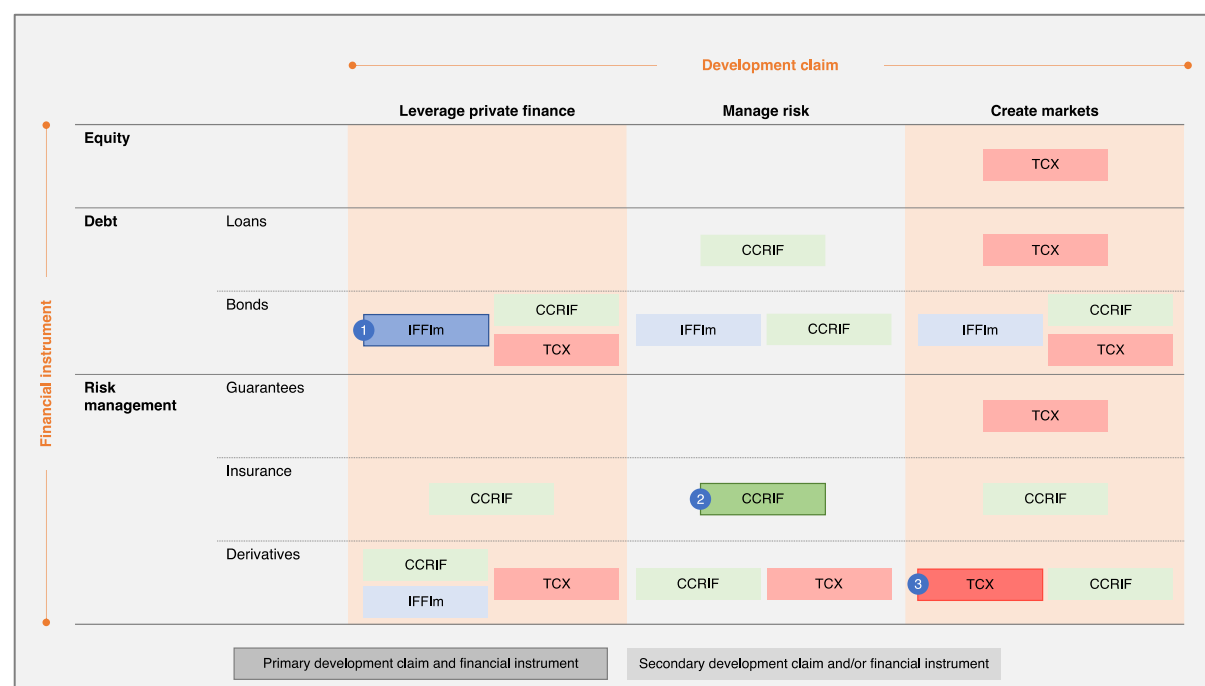
For selecting case studies, I sought to identify a sample of cases that can generate analytical generalisations about IDF from the detailed information in each case study, which will necessarily be grounded in a particular sector, place, set of actors, and financial instruments. Informed by Miles and Huberman (1994), I have selected multiple cases on conceptual grounds in order to add confidence in these generalisations and answers to my research questions.

I have identified five criteria which I use to select case studies. The first four are conceptual criteria necessary to make analytical generalisations and the last one is for feasibility: (a) development claims; (b) financial instruments; (c) actors; (d) sectors; and (e) data access. I draw on my analytical framework of financing models (Figure 8) to select case studies that are both representative of the IDF landscape and provide variation along the two key dimensions of interest: (a) development claims which characterise IDF and (b) financial instruments which constitute IDF. There is a close link between financial instruments and actors, the third dimension. Selecting case studies using a framework based on financial instruments, therefore, links closely to sampling (c) a range of actors (for example, capital market actors play a role in bonds or insurance providers for insurance). On top of these, I add (d) a sector overlay to select cases across a range of areas so that my findings are not sector specific. A final practical consideration is (e) access to sufficient data. As discussed in Chapter 3, following the money is the primary methodology for analysing each case study, and this critically requires the activities within the case studies to appear in sufficient detail in financial statements and other financial reports.

I adopt a 'diverse case' selection technique where cases illuminate a full range of variation in the relevant parameters (a-d), and therefore improve my sample's claims to representativeness of IDF (Gerring, 2008). In this diverse case approach, I use the analytical framework to identify groups of cases, in other words financing models (the grey boxes and intersections in Figure 8), within which there is likely some degree of homogeneity. For example, different bonds issued in the same capital markets with similar investment decision heuristics, or because actors overlap in the case of a single DFI's equity investment decisions. Based on the map of financing models, I have then identified a sample of cases (see Figure 9) with some claim to representativeness of IDF and with variation along key dimensions of interest for exploring the research questions. On top of the primary 'diverse case' selection technique, within financing models I consider 'emblematic' cases, meaning cases which are often used as examples of IDF or illustrations of its merits in the grey literature. I identified these 'emblematic' or influential cases through systematic reading of documents published by

organisations such as the World Bank, UN, OECD, World Economic Forum (WEF), a range of DFIs and MDBs, and others. This does not necessarily contribute to the sample's representativeness but focuses the research on significant and influential projects within the development world, which contributes to the relevance and potential impact of the research.

Figure 9. Analytical framework: Case studies



In line with the analytical framework's three core development claims, I have selected three case studies such that there is one case squarely aimed at each of the claims: IFFIm primarily aims to leverage private finance, CCRIF to manage risk, and TCX to create markets. Importantly, these three cases feature a range of financial instruments such that, across the selection, many types of financial instruments are represented, including equity, a variety of debt instruments, and several risk management instruments. Finally, they feature a large range of private and public actors; operate in the context of different industries or sectors, namely global health, disasters, and finance; and from a data perspective, publish financial statements more or less as standalone entities. Taken together, these cases have some (necessarily partial) claim to representativeness of the IDF landscape.

4.3 The International Finance Facility for Immunisation

IFFIm is emblematic of innovative financing for development, and the financialisation of both development and global health more broadly. IFFIm is a funding mechanism targeting immunisation in low-income countries²⁴. It issues vaccine bonds in capital markets, backed by long-term legally binding pledges from donor governments. The capital raised from institutional and individual investors is used to finance Gavi²⁵ immunisation and health system strengthening programmes. Donor government grants are subsequently used to pay the bonds' interest and principal. Proponents argue the key benefits of IFFIm's financing model are: (1) frontloading to make funds available to Gavi earlier than they would otherwise be; (2) its ability to leverage private sector funds; (3) low funding costs; and (4) improving the predictability of Gavi's funding. IFFIm primarily claims to leverage private finance, but addresses the three core development claims of IDF (identified in Chapter 5).

IFFIm was praised as a 'catalytic success story' in the 2012 G8 summit official report, which noted that it has been 'game changing' for global immunisation (IFFIm, 2012). IFFIm is cited as a leading example of an innovative finance mechanism for development in the UN's Addis Ababa Action Agenda (United Nations, 2015b) as well as by the World Bank (Girishankar, 2009), OECD (Sandor, Scott and Benn, 2009), World Economic Forum (2019a) and UNDP (2012) among others. IFFIm's model is touted as an innovative way of realising future aid commitments which frontloads the availability of funds (see for example the World Bank's working paper by Ratha, Mohapatra and Plaza, 2008; and for a more recent OECD exposition of frontloading, Kapoor, 2021). IFFIm has served as inspiration for other innovative financing mechanisms, including very directly in the case of a proposed International Finance Facility for Education (Education Commission, 2018, 2021). IFFIm was the first issuer of 'vaccine bonds' and is celebrated as a pioneer of social bonds and socially responsible investment, receiving many awards, including the Financial Times and International Finance Corporation's (World Bank Group) 'Achievement in Transformational Finance Award' (IFFIm, 2015), and mtn-I's²⁶ 'SRI²⁷ Innovation of the Decade' (IFFIm, 2013). IFFIm has been influential for the International Capital Markets Association's (ICMA) set of Social Bond Principles, released in 2017, which aim to support the social bond market (ICMA, 2017).

²⁴ IFFIm supports immunisation in Gavi-eligible countries. Gavi eligibility is based on national income. In 2020, 57 countries were eligible for Gavi support. A country is eligible if average Gross National Income (GNI) per capita has been less than or equal to \$1,630 over the past three years. Initially, in 2000, Gavi's eligibility threshold was set at \$1,000 GNI per capita, making 74 countries eligible.

²⁵ Gavi is a much-celebrated public-private partnership focused on immunisation which has raised significant resources for vaccines. However, Gavi has also been critiqued for subsidising the pharmaceutical industry and giving it too much power to determine global health agendas, and having a negative impact on health systems in beneficiary countries (for more, see for example Médecins Sans Frontières Access Campaign; Storeng, 2014).

²⁶ Mtn-I is an influential media organisation covering global private debt markets.

²⁷ Socially Responsible Investment.

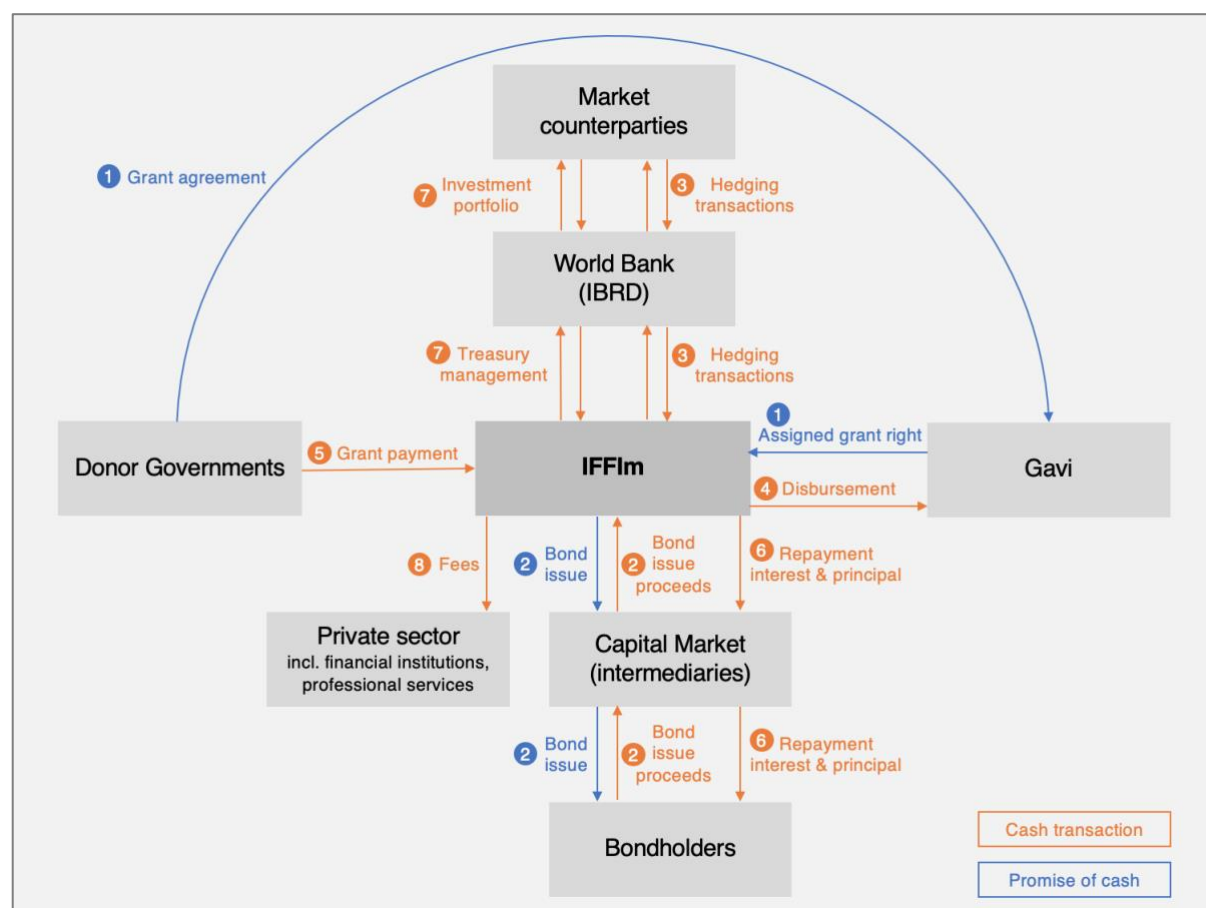
Heralded as a success, IFFIm had secured \$6.5 billion in donor commitments since its inaugural issuance in 2006 up to 2019. IFFIm is backed by grants from ten donor governments (ordered by commitment size up to 2019): the UK, France, Norway, Italy, the Netherlands, Spain, Australia, Sweden, South Africa, and Brazil. Of the \$6.5 billion pledged by 2019 for the 2006 to 2037 period, the UK accounts for \$3.0 billion and France \$1.9 billion. Backed by these pledges, IFFIm had issued 35 bonds by 2019, raising \$6.6 billion from investors. Of that funding, IFFIm disbursed \$2.9 billion to Gavi between 2006 and 2019 which represented over 20% of Gavi's total funding, although in Gavi's initial years IFFIm provided over half its funding, thus making a significant financial contribution to global health. Indeed, Gavi helps vaccinate almost half the world's children against certain infectious diseases. Since it was set up in 2000, Gavi has immunised over 822 million children and prevented an estimated 14 million deaths (Gavi, 2020).

Mapping the flow of money, as part of following money, captures the essence of IFFIm's financing model (see Figure 10; maps are reproduced in full page size in Appendix A) and reveals a network of actors connected through a complex set of financial flows:

1. Donor governments sign irrevocable grant agreements (often spanning 15 to 20 years) with Gavi, which assigns the grant rights to IFFIm;
2. IFFIm issues bonds in capital markets, backed by donor governments' pledges, and receives the bond proceeds;
3. IFFIm enters into hedging agreements with the World Bank for its currency and interest rate risk exposure for donor government grants, and bond interest and principal payments; the World Bank enters into hedging agreements with market counterparties;
4. Following a funding request from Gavi, IFFIm makes disbursements to immunisation programmes;
5. Donor governments make grant payments to IFFIm, fulfilling their pledges;
6. IFFIm makes interest and principal payments to bondholders;
7. Throughout, IFFIm is transacting with the World Bank as its treasury manager, including in respect to IFFIm's significant investment portfolio which holds investments with market counterparties; and
8. IFFIm incurs a variety of fees due to financial institutions, professional services, and other companies.

It is worth noting that IFFIm operates with a board of trustees and no employees. IFFIm's administrative functions are performed by Gavi, and treasury management operations by the World Bank.

Figure 10. IFFIm – Map of flow of money²⁸ (reproduced in Appendix A)



IFFIm is a clear case of the financialisation of development, specifically finance extending and deepening its reach into global health. Through IFFIm, vaccine delivery in lower income, Gavi-eligible countries becomes connected to global financial flows. IFFIm securitises aid provided by donors – through vaccine bonds, IFFIm bundles and sells the rights to income from future donor government grants. In this way, government grant agreements – a stable income stream – are converted into financial instruments and exchanged in capital markets. This process gives rise to a range of financial flows, in addition to aid payments by donors and grant

²⁸ Note: map doesn't include all flows, for example: trustees indemnity insurance premiums, trustees' meetings and travel expenses, administrative support fee paid to the Gavi Fund and donated services from the Gavi Fund, foreign exchange gains on cash, and interest on cash at bank.

disbursements to Gavi: capital market transactions (bond issuance proceeds, the payment of interest and principal on bonds, and the trading of bonds), treasury management transactions with the World Bank, investment portfolio transactions, hedging transactions, and fees. Furthermore, a plethora of financial actors are enrolled in different roles in this process: private financial institutions (in connection to the bond programme) act as arranger of the overall bond programme, managers, dealers, placers, the trustee (or the delegate), paying and transfer agents, the registrar, the exchange agent, the listing agent, the share trustee, and the commodity agent; private financial institutions (in connection to other financial transactions) take the roles of investment portfolio managers and counterparties to hedging transactions; credit rating agencies rate IFFIm; and pension funds, insurance companies, asset managers, and other private financial institutions together with central banks and other official institutions enter as bondholders. The map, therefore, points to the extensive work needed to transform funding for Gavi into vaccine bonds which represent assets available for speculative capital.

4.4 The Caribbean Catastrophe Risk Insurance Facility

CCRIF is another prominent example of innovative development finance, and the financialisation of both development and disaster management. CCRIF is a financial mechanism to manage disaster risk for member governments in the Caribbean and Central America. Specifically, it aims to manage government financial vulnerability after a disaster through the provision of parametric insurance policies to member governments. These policies are backed by CCRIF's own reserves and a risk transfer programme to capital markets through reinsurance policies, catastrophe bonds, and catastrophe swaps. If a triggering event occurs, CCRIF makes quick payouts to provide liquidity to member governments. CCRIF's financial model claims to (1) mitigate the risk of short-term cash flow problems for governments after disasters; (2) be cost-effective; and (3) fill the gap between immediate response and long-term redevelopment. CCRIF primarily aims to manage risk, but similarly addresses IDF's three core development claims (in Chapter 5).

Like IFFIm, CCRIF is frequently cited as a leading example of IDF by the World Bank (Girishankar, 2009), UN (2012), UNDP (2012), World Economic Forum (2019a), and Leading Group (2012a). CCRIF is the first multi-country risk pool worldwide, and its model is widely considered to be an innovative way of managing disaster risk, and pre-financing disaster response and recovery. CCRIF has been a model for other innovative financing mechanisms in development, including three sovereign catastrophe risk pools, of which CCRIF remains the largest; namely the African Risk Capacity established in 2012, the Pacific Catastrophe Risk

Insurance Company launched in 2016, and the Southeast Asia Disaster Risk Insurance Facility started in 2018. CCRIF also contributed to the committee developing the World Bank's Pandemic Emergency Facility (PEF; for an excellent analysis of this see Erikson, 2019). CCRIF has also contributed to global discussions on addressing the risks of climate change through insurance, for example at COP15 in Copenhagen in 2009 or implementing the 'Climate Risk Adaptation and Insurance in the Caribbean' project with the Munich Climate Insurance Initiative (MCII). In finance, CCRIF was the first insurance instrument to develop parametric policies backed by both traditional insurance markets and capital markets, and the World Bank issued its first ever catastrophe bond as part of CCRIF's risk programme (World Bank, 2014a). CCRIF has received industry awards recognising its pioneering role in developing (re)insurance²⁹ markets, for example receiving the 'Re/Insurance Initiative of the Year' award at The Review Worldwide Reinsurance Awards (CCRIF, 2008a) and being named 'Transaction of the Year' at the Insurance Day London Market Awards (CCRIF, 2008b) in its first season alone.

Since its first season in 2007/2008 up to the 2018/2019 season, CCRIF has provided \$7.7 billion of disaster risk coverage across 414 insurance policies to its 22 member governments³⁰ for tropical cyclones, earthquakes, and excess rainfall. To manage its financial risks, CCRIF has secured \$1.8 billion in external risk capital, of which around \$1.5 billion is through reinsurance and around \$0.3 billion is from capital markets through catastrophe swaps and bonds, intermediated by the World Bank. Following specific disasters, CCRIF has made 38 payouts totalling \$140 million to 13 of its member governments, all within 14 days, contributing to their recovery. The initial technical development of CCRIF was led by the World Bank, with funding from Japan, following a request for support from Caribbean governments in the aftermath of hurricane Ivan which struck in 2004. Subsequently, CCRIF has received \$117 million in financial contributions through two World Bank administered multi-donor trust funds (MDTFs) from the European Union (EU), Canada, Germany, the World Bank, the US, the UK, France, the Caribbean Development Bank (CDB), Ireland, and Bermuda (ordered by total contribution). CCRIF has also received contributions outside the MDTFs from Mexico, Ireland, and the MCII (Germany).

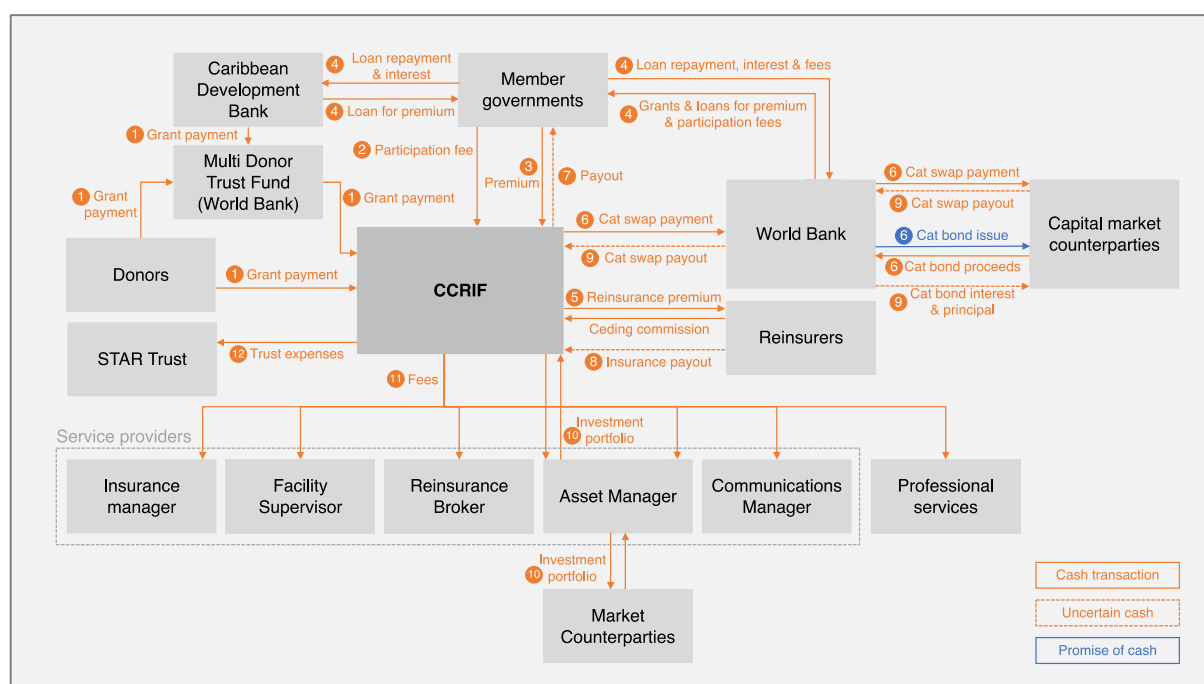
²⁹ In standard insurance industry terminology (re)insurance includes insurance and reinsurance.

³⁰ Member governments from the Caribbean are Anguilla, Antigua and Barbuda, the Bahamas, Barbados, Belize, Bermuda, the British Virgin Islands, the Cayman Islands, Dominica, Grenada, Haiti, Jamaica, Montserrat, Saint Kitts and Nevis, Saint Lucia, Sint Maarten, Saint Vincent and the Grenadines, Trinidad and Tobago, and the Turks and Caicos Islands. Central American member governments are Guatemala, Nicaragua, and Panama.

The map of the flow of money through CCRIF (see Figure 11; Appendix A) captures its financial model and reveals the network of actors and flows of money which constitute CCRIF:

1. Donor governments make grant payments to capitalise CCRIF, some through World Bank administered multi-donor trust funds;
2. Member governments pay participation fees to capitalise CCRIF;
3. Member governments pay insurance premiums to purchase parametric insurance policies from CCRIF;
4. Some member governments enter into loan or grant agreements with the Caribbean Development Bank or the World Bank to fund their premiums and participation fees;
5. CCRIF purchases parametric reinsurance policies from reinsurers, and receives a ceding commission;
6. CCRIF enters into catastrophe swap agreements with the World Bank to transfer risk to capital markets; the World Bank enters into catastrophe swap agreements with market counterparties and issues a catastrophe bond;
7. If a triggering event (disaster) occurs, CCRIF makes a payout to member governments under their insurance policy;
8. If the event (disaster) triggers CCRIF's reinsurance policies, CCRIF receives a payout from reinsurers;
9. If the event (disaster) triggers CCRIF's capital market risk transfer programme, CCRIF receives a payout from the World Bank which receives a payout from market counterparties;
10. Throughout, CCRIF is transacting with respect to its investment portfolio with its asset managers and market counterparties;
11. CCRIF incurs a variety of fees due to service providers and other professional services companies; and
12. CCRIF makes payments to its shareholder, the STAR trust, for its expenses.

Figure 11. CCRIF – Map of flow of money³¹ (reproduced in Appendix A)



CCRIF is an example of the financialisation of development, in particular disaster risk management (for a searing critique on this, see also Grove, 2012). Through CCRIF, post-disaster recovery and member government budgets become connected to global financial flows. CCRIF pools disaster risk exposure from its member governments – through a joint reserve mechanism and selling parametric insurance policies – and repackages the risk exposure to transfer to reinsurance and capital markets – through parametric reinsurance policies, catastrophe swaps, and catastrophe bonds (on the latter, see Johnson, 2013, 2014). In this way, risk exposure to tropical cyclones, earthquakes, and excess rainfall events in the Caribbean and Central America region is converted into financial instruments and exchanged as assets in capital markets (on insurance-linked securitisation see Johnson, 2014). This process has a range of connected financial flows on top of contributions by donors and member governments and the payouts the latter receive: insurance market transactions (reinsurance contract premium, ceding commission, and payouts), derivative transactions with capital markets intermediated by the World Bank, investment portfolio transactions, debt agreements between member governments and the Caribbean Development Bank or World Bank, and fees. A range of financial actors participate in CCRIF in different roles: private

³¹ Note: map doesn't include all flows, for example: board remuneration, officers' insurance, meeting expenses, startup expenses, registered office fee, sundry and bank charges, Cayman Islands Monetary Authority or government fees, Central America initiative expenses, donation to UNESCO (United Nations Educational, Scientific and Cultural Organisation), technical assistance, and MCII grant.

financial institutions (as service providers) act as insurance manager, facility supervisor, reinsurance broker, and asset manager; insurance institutions take the role of reinsurer; financial institutions enter as counterparties to CCRIF's investment portfolio; and financial institutions are investors in the CCRIF-World Bank derivative programme. As in the case of IFFIm, the map highlights the work which repackages disaster risk into assets available for speculative capital.

4.5 The Currency Exchange Fund

TCX is the third case study, chosen, as with the others, as a leading example of an IDF initiative, and is an example of the financialisation of development. TCX is a financial mechanism to promote local currency³² lending, rather than development loans denominated in hard currency which expose borrowers to exchange rate volatility, which can be significant. To achieve this, TCX aims to develop local capital markets in 'emerging and frontier markets'. The TCX fund provides its DFI shareholders (also its clients) derivative financial instruments to manage their currency risk. These instruments allow the DFIs to effectively lend to borrowers in their local currencies and shift the currency risk to TCX. This means the end borrower is not exposed to the currency mismatch often typical of development loans. Additionally, TCX supports local currency bonds and currency swaps in capital markets. The key claims TCX's model makes are (1) to develop local capital markets; (2) to de-risk development finance; and (3) cost effectiveness. TCX focuses on creating markets, although it also addresses the three core development claims of IDF (see Chapter 5).

Although less well known than IFFIm or CCRIF, TCX is often presented as an example of IDF by, for example, the OECD (2016), the Leading Group (2012a), and the UN (UNCDF³³, 2018). The TCX Fund is the first facility to provide a solution to local currency risk in development. Its financial model is considered innovative because the TCX Fund creates markets; it aims to provide local currency hedging products where there are no offshore hedge markets, no long-term hedging products, or no hedge markets at all. TCX has influence beyond its immediate activities, particularly in managing financial risk in development. For example, TCX (with IFC) is the implementing partner on a Global Innovation Lab for Climate Finance initiative (Climate Finance Lab, 2021), and has financially backed Frontclear, a development finance company focused on developing money markets by providing guarantees. TCX has also been

³² For TCX, 'local currency' is used to mean currencies of countries on the OECD DAC list of ODA recipients, in other words they are local for the end borrowers of development loans.

³³ United Nations Capital Development Fund.

recognised in the world of finance, for example winning the 'Investor Solutions' award from mtn-i (mtn-i, 2018). TCX positions itself as a market-maker, specifically offering derivative instruments which are unavailable from commercial providers. This focus on market additionality means the hedging instruments it provides are often 'firsts' in either the particular currency or maturity. Furthermore, many of the local currency bonds TCX supports are leading transactions of their type in those currencies, for example the 'largest note ever in frontier currency' issued by FMO (TCX, 2020a) or 'first boliviano bond sold' (TCX, 2019).

Since its inception in 2007 until 2019, TCX has supported \$7.4 billion in local currency development loans. TCX has significant geographical coverage, offering hedges in 95 currencies which cover 112 countries. In 2019, TCX's portfolio was active in 56 currencies. TCX's primary portfolio stood at \$3.4 billion in 2019, of which 14% was for least developed countries, 2% other low income, and 84% middle income countries. TCX's portfolio is significantly oriented towards the financial sector, which represented 84% of its portfolio in 2019 (48% microfinance, 21% SME³⁴ finance, and 15% other finance sector), with most of the remainder used in infrastructure. As part of its activities, between 2013 and 2019 TCX has also offset a substantial volume of local currency risk through cross currency swaps in capital markets and since 2016 has hedged \$732 million through local currency bonds. TCX was set-up by a group of 17 (mostly European) development finance institutions as the shareholders³⁵, coordinated by FMO. The Dutch and German governments provided donor funding in the form of concessionary lending. In later years, the Inter-American Development Bank (IDB) and UK government have provided further debt funding.

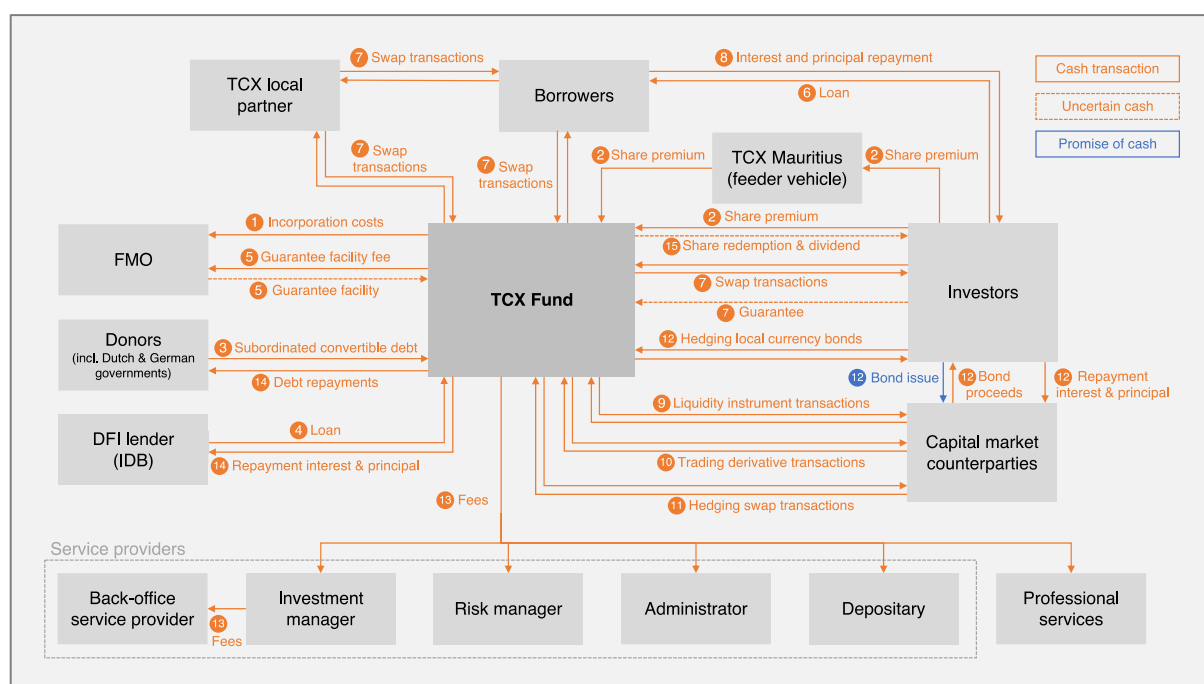
TCX's map of the flow of money (see Figure 12; Appendix A) illustrates its financial model and shows the network of actors and flows of money which make up the initiative:

³⁴ Small and Medium-sized Enterprises.

³⁵ The initial investors included (in order of commitment size) the Dutch development bank FMO (Nederlandse Financieringsmaatschappij voor Ontwikkelingslanden), the European Bank for Reconstruction and Development (EBRD), the German development bank KfW (Kreditanstalt für Wiederaufbau), the French development agency AFD (Agence Française de Développement), the Development Bank of Southern Africa (DBSA), the German development bank DEG (Deutsche Investitions- und Entwicklungsgesellschaft), the Dutch bank ABN AMRO, the African Development Bank (AfDB), the OPEC Fund for International Development (OFID), the Belgian Investment Company for Developing Countries (BIO), the Danish development bank IfU (Industrialiseringsfonden for Udviklingslandene), the Norwegian development bank Norfund, the Spanish development bank COFIDES (Compania Espanola de Financiacion del Desarrollo), the French development bank Proparco, Oikocredit (Ecumenical Development Cooperative Society), the European Fund for Southeast Europe (EFSE), Oikocredit on behalf of ASN Fund and Oxfam/Novib Fund. Later investors included the European Investment Bank (EIB), the Japan Bank for International Cooperation (JBIC), the International Finance Corporation (IFC), ASN Mikrokredietpool, MFX Solutions, the Dexia Micro Credit Fund / Blue Orchard Microfinance Fund, and the Grameen Credit Agricole Microfinance Foundation.

1. TCX makes a payment to FMO to cover the incorporation costs;
2. TCX's investors pay the share premium for their shares, some of them via TCX Mauritius, a feeder vehicle for TCX;
3. Donors provide debt financing in the form of a subordinated convertible loan;
4. A DFI lender, IDB, provides further debt financing in the form of a loan;
5. FMO provides TCX with a guarantee facility, for which TCX pays FMO a fee;
6. TCX's investors provide a development loan to local end borrowers;
7. TCX enters into swap transactions with either its investors, end borrowers or a local partner, depending on the exact structure, to swap hard currency lending into local currency; under some structures, investors provide TCX with a guarantee;
8. Borrowers make interest payments and principal repayments on the loan to investors;
9. TCX transacts with capital market counterparties in money market instruments with respect to its liquidity portfolio to manage its assets and cashflow;
10. TCX transacts with capital market counterparties in derivatives with respect to its trading portfolio to balance the diversification of its primary portfolio;
11. TCX transacts with capital market counterparties with respect to its hedging portfolio, entering into cross currency swap agreements for offsetting to reduce its exposure to certain local currency risks;
12. TCX transacts with investors with respect to its hedging portfolio, entering into hedging agreements with investors with respect to local currency bonds which they issue to capital market counterparties, which then provide bond proceeds and repay the interest and principal to investors;
13. TCX incurs a variety of fees due to its service providers and other professional services companies;
14. TCX makes interest payments and principal repayments to both donors and the DFI lender; and
15. TCX pays dividends to shareholders, and investors receive share redemption payments if they redeem their shares.

Figure 12. TCX – Map of flow of money³⁶ (reproduced in Appendix A)



Similar to IFFIm and CCRIF, TCX is an example of the financialisation of development. Through TCX, end borrowers in ODA-eligible countries, typically microfinance and SME borrowers, become connected to complex global financial flows. TCX's model inserts derivative financial instruments – swaps and forwards³⁷ – between DFIs and end borrowers. In parallel, TCX bundles exposures to a range of local currency risks (as part of its primary portfolio) and repackages this to sell to financial market counterparties – through cross currency swaps and local currency bonds (on foreign exchange swaps, see Dafermos, Gabor and Michell, 2022). Risk exposure to different currencies is converted into financial instruments and made available to speculative investors. Beyond the development loans from DFIs and donor finance, a range of other financial flows are part of the TCX model of development lending: swap transactions between TCX and its investors, end borrowers or a local partner; capital market transactions with respect to TCX's liquidity (money market instruments), trading (derivatives), and hedging portfolios (cross currency swaps and local currency bonds); capital market transactions with DFI investors for local currency bonds;

³⁶ Note: map doesn't include all flows, for example: supervisory board remuneration, other governance expenses, interest expense, other expenses, Joint Donor Escrow Account deposits and disbursements, finance cost or grant to Cardano, and other results.

³⁷ For reference: a cross currency swap is a contract between two parties which agree to exchange multiple fixed amounts in two different currencies (usually interest payments and loan principal); a foreign exchange forward contract is an agreement to buy or sell an amount of a foreign currency at a specified price at a specified time in the future.

equity and debt financing agreements with donors, lenders, and investors; and fees. A wide range of financial actors are part of the process: private financial institutions (as service providers) take the roles of investment manager, risk manager, administrator, and depositary; financial institutions are counterparties in TCX's liquidity portfolio and trading portfolio transactions; financial actors participate as investors in TCX's hedging portfolio through its offsetting and local currency bond programmes. The map shows some of the work which transforms straightforward development loans from DFIs into a complex range of financial instruments, and which transforms local currency risks into assets available for speculative financial investors.

4.6 Conclusion

This chapter introduced IFFIm, CCRIF, and TCX, arguing they are all emblematic examples of IDF and represent cases of the financialisation of development. Drawing on the analytical framework, these cases were selected on conceptual grounds so that they can generate analytical generalisations about IDF. There is variation across the cases in their development claims, financial instruments, actors, and sectors, to improve the three case studies' claim to representativeness of IDF. The three projects are also celebrated and influential, increasing the relevance of the research. The next chapters will move into more detailed analysis of the cases, drawing on follow the money methodology (Chapter 3).

In the analysis, I focus on the period from each project's launch until 2019 to avoid the significant and differing impact of the COVID-19 pandemic on each case from affecting my findings. It is worth noting that, despite this, all three cases have been going from strength to strength over the last few years as the end of 2022 approaches. IFFIm positioned itself as a funding vehicle for COVID-19 vaccines, issued its most recent bond in 2022, and has secured new donor funding as recently as 2021. CCRIF has launched two new products for fisheries and electric utilities, a new member has joined, and payouts have been made on tropical cyclone and excess rainfall policies. TCX was significantly impacted by financial market movements at the beginning of 2020 but recovered substantially in 2021, reporting record production volumes, some shareholders increased their investments in 2020, and it launched the TCX Frontier Currency Index in 2021.

Chapter 5. Innovative development finance? Financial solutions to development challenges

5.1 Introduction

This chapter presents the story of innovative development finance, building on the trends identified in Chapter 2, namely the role of the private sector in the MDG era, the private finance turn in the SDG era, and the financialisation of development. In this chapter, I also critically examine what the IDF concept actually is and present my analytical framework of the IDF landscape.

Official discourse on financing for development tracks the emergence of the idea of ‘innovative development finance’ in the early 2000s in the context of the MDGs, through to the launch of the first initiatives and gaining considerable political momentum by the mid-2000s. Within a decade, IDF initiatives had proliferated and IDF had become an established element of the development financing landscape, framed as a solution to bridge a ‘financing gap’ in development. In the SDG era, IDF has taken a more leading role and is at the core of financing for development agendas, situated in the context of the wider shift towards private finance and the financialisation of development.

This chapter contributes a theoretical analysis of the concept of IDF as a financial solution. Interestingly, although the term IDF is widely used and often celebrated, there is no broadly agreed definition. This chapter’s analysis first questions whether IDF initiatives are ‘innovative’, revealing that both the financial instruments and financial logics are ordinary and market standard. Second, while IDF initiatives tackle genuine development challenges, my analysis shows IDF’s three core development claims are financial – to leverage private finance, manage risk, and create markets. Finally, I argue IDF initiatives represent a financial solution to a development challenge, made up of a bundle of financial instruments. The chapter also concludes by arguing IDF can be understood as financialised development, both driving and driven by the wider process of the financialisation of development.

5.2 Early 2000s: The emergence of innovative development finance

The idea of innovative development finance officially became part of UN financing for development discourse in the 2002 Monterrey Consensus at the first summit on Financing for Development, which marked a turning point in renewed political attention to development finance. The Monterrey Consensus recognised the “value of exploring innovative sources of finance” and sought to support the nascent idea of “new public/private sector financing mechanisms”, inviting “banks and other financial institutions [...] to foster innovative development financing approaches” (United Nations, 2002: 10 and 16). The idea of innovative sources of funding had already appeared before Monterrey in preparations for the summit. In 1999, preparatory work by the Ad Hoc Open-ended Working Group of the General Assembly on Financing for Development put ‘innovative sources of funding’ on the agenda for the at the time undetermined future financing for development summit, listing a wide range of potential publicly and privately funded mechanisms to be considered (United Nations, 1999). In later substantive preparations for Monterrey, which began in 2000, innovative sources of finance were framed as providing supplemental resources on top of traditional sources of funding (mainly ODA) which were expected to fall short of what was required to meet development needs, framed in particular around the MDGs.

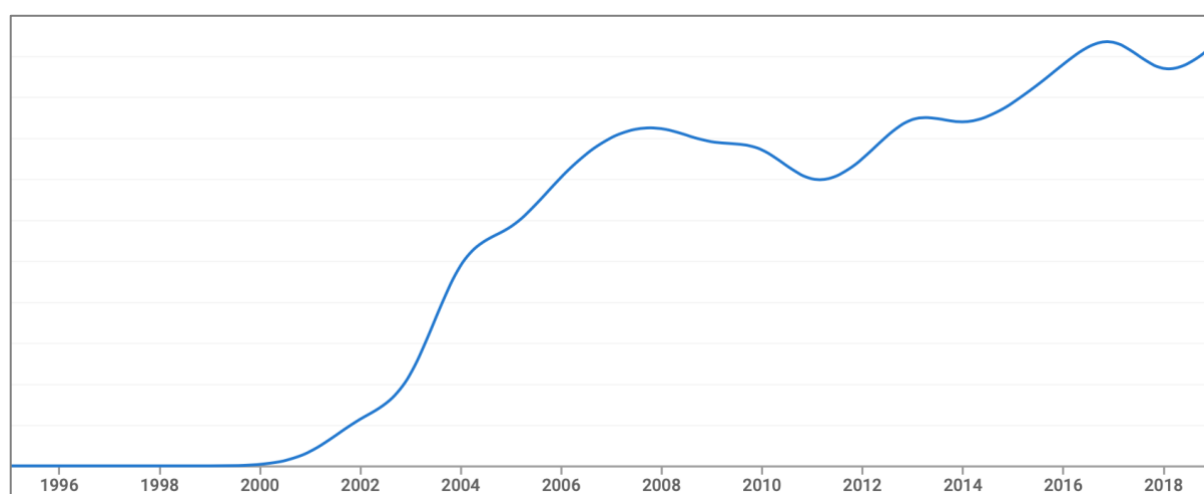
At that time, in preparations for Monterrey, the focus of innovative sources of finance was narrower than what would actually emerge within a few years. Discussions were mainly focused on innovative taxes, such as a currency transaction tax (known as Tobin tax) or carbon tax, and new allocations of SDRs³⁸ by the IMF (see for example the report of the High-level Panel on Financing for Development, United Nations, 2001). These ideas had a long history, with some discussions dating to the 1960s and 1970s (Herman, 2013). In parallel to preparations for the Monterrey summit, the term ‘innovative sources of funding’ appeared at the UN, again in relation to tax, at the 24th Special Session of the General Assembly on Social Development held in Geneva in 2000. The UN resolution, as part of aiming to mobilise new and additional resources for social development, decided to conduct analysis of “proposals for developing new and innovative sources of funding, both public and private, for dedication to social development and poverty eradication programmes” (United Nations, 2000: paragraph 142).

Following the Monterrey summit, IDF ideas also quickly began to appear in official World Bank and IMF development agendas (and elsewhere, as indicated in Figure 13). In 2003, the joint World Bank and IMF Development Committee first called for a review of “various policy options, such as an international financing facility, to mobilize the substantial additional

³⁸ Special Drawing Rights.

resources that are needed [...] to achieve development results and in scaling up progress towards the MDGs” (Development Committee, 2003). The report, *Financing Modalities toward the Millennium Development Goals*, supported the agenda broadening the range of financing mechanisms for development beyond traditional aid and presented a relatively detailed discussion of select mechanisms, including an International Finance Facility (IFF) to frontload aid to achieve the MDGs and global taxation proposals (Development Committee, 2004a).

Figure 13. Google Books Ngram Viewer search for 'Innovative financing for development' (1995-2019, English, smoothing of 3) (Source: books.google.com)



The narrative surrounding the emergence of IDF revolved around a projected shortfall in financial resources to achieve ODA targets for the MDGs. As noted in Chapter 2, and committed to in the Monterrey Consensus, efforts to fund the MDGs centred on donors achieving the ODA target of 0.7% of GNP. After the agreement in 2002, however, actual levels of ODA were significantly below the target. The UN identified “the original impetus [...] of IDF [...] emerged from the realization that in order to meet the goals set out at the UN Millennium summit by 2015, the level of ODA would have to *double*” (United Nations, 2009: 4) – a substantial shortfall according to official discourse. IDF was positioned as a solution to the identified gap between the targeted amount of ODA resources and actual ODA flows. In this story, IDF was *necessary* to supplement aid flows to mobilise the resources required to meet the MDGs (see for example Development Committee, 2004a, 2004b). Later, as IDF evolved and became more established, the narrative around a resource shortfall continued, although the gap is no longer only to the 0.7% ODA target.

By the mid-2000s, the idea of IDF had gained considerable and broad political momentum. In 2005 at the UN, 79 countries endorsed the Declaration on Innovative Sources of Financing for Development, which called for innovative financing mechanisms to play a role in increasing and supplementing traditional sources of finance, including ODA, given the need to scale-up resources to achieve the MDGs (United Nations, 2005a). The declaration pointed to discussions of concrete initiatives such as the International Finance Facility and a solidarity contribution levied on plane tickets (United Nations, 2005a). With this broad political support, the UN's 2005 World Summit Outcome officially recognised the "value of developing innovative sources of financing for development" (United Nations, 2005b: 5). While much of the early focus for IDF was concentrated on public tax-funded schemes, at this point the concept had definitively broadened, shifting away from tax-based schemes which faced strong political opposition from some countries including the US (Herman, 2013), and explicitly encompassed both public and private resources.

The mid-2000s can be understood as a pilot phase for IDF, when a number of significant initiatives were launched, moving the idea from discussion to reality. Two notable early initiatives, IFFIm and Unitaid, appear frequently in official discourse (see for example United Nations, 2005a, 2008a, 2009). From as early as 2003, Gordon Brown as UK Chancellor of the Exchequer, proposed the idea of an International Finance Facility to raise funding for the MDGs (Brown, 2016; United Nations, 2009). This idea eventually developed into a mechanism to frontload money for immunisation, with a pilot launched in 2004 backed by the UK and France. In 2006 the International Finance Facility for Immunisation was launched, with \$4 billion in aid commitments from the UK and France, together with Italy, Spain, Sweden, and Norway. As introduced in Chapter 4, IFFIm issues bonds in capital markets, backed by long-term pledges from donor governments, to frontload funding for Gavi. In 2006, IFFIm issued its inaugural \$1 billion vaccine bond. The same year, Unitaid was launched by founding countries France, Brazil, Chile, Norway, and the UK. Foundational work began in 2004 when the Presidents of France, Brazil, and Chile, together with the UN Secretary-General, launched the Group on Action Against Hunger and Poverty, a technical group on innovative financing mechanisms. France, Brazil, and Chile are credited with the innovative idea of levying a micro global tax on plane tickets to fund global health and development in another country. France was the first to implement the solidarity levy on airline tickets, and it has since been joined by several countries, including Cameroon, Chile, Congo, Guinea, Madagascar, Mali, Mauritius, Niger, and the Republic of Korea. The aims of Unitaid were to use market mechanisms to increase access to HIV/AIDS³⁹, tuberculosis, and malaria treatments; reduce the price of

³⁹ Human immunodeficiency virus; acquired immunodeficiency syndrome.

drugs and diagnostics; and increase the speed they reach people in lower income countries. The solidarity levy, which accounted for a majority of Unitaids' funding, raised \$1 billion in its first three years, with a significant proportion from the French levy (I-8 Group, 2010). Unitaids also receives budget contributions from traditional funding from donors. Many more IDF projects followed in the footsteps of these two pioneering initiatives, such that by the late 2000s a diverse range of different mechanisms constituted the operationalisation of IDF.

Around the same time as these early initiatives launching, three key new actors emerged to define and support the scaling-up of IDF and elevate its agenda on the international stage. First, in 2006, at a conference convened by France in Paris, the Leading Group on Solidarity Levies to Fund Development was established, led by France, Chile, Brazil, and Spain. This represented the first institutionalised global framework for operationalising IDF (United Nations, 2009). In its early days, the Leading Group was important in raising support for one of the first IDF initiatives, the solidarity levy on airline tickets to fund Unitaids outlined above. In 2009 it was renamed as the Leading Group on Innovative Financing for Development, which now serves as a platform to promote IDF and includes 66 countries as members, together with international organisations, NGOs⁴⁰, and private foundations. Second, the High-Level Task Force on Innovative International Financing for Health Systems, chaired by Gordon Brown as UK Prime Minister and President of the World Bank, Robert Zoellick, was launched in 2008 and concluded with its report in 2009, 'More money for health, and more health for the money' (see Taskforce, 2009). Its recommendations included a range of innovative financing options to meet the identified additional \$10 billion needed per year for health in low-income countries to achieve the MDGs (Taskforce, 2009; see also McCoy, 2009; Fryatt and Mills, 2010; McCoy and Brikci, 2010). Third, building on the work of the Leading Group and Taskforce, the I-8 Group or L.I.F.E. (Leading Innovative Financing for Equity), under the aegis of the UN and created in 2009, brought together eight innovative finance initiatives (see Table 3 below), coordinated by the UN Secretary-General's Special Advisor on Innovative Financing for Development appointed the previous year. Its aim was to further promote IDF by creating a network to share experience, reinforce existing initiatives, prepare the ground for new ones, and coordinate across initiatives (United Nations, 2009; I-8 Group, 2010).

5.3 Late 2000s: Innovative development finance becomes an established element of financing for development agenda

⁴⁰ Non-Governmental Organisations.

By the late 2000s, innovative development finance had become an established element of the financing for development discourse and architecture (see indication in Figure 13). The 2008 Doha Declaration officially recognised the significant progress made on innovative sources of finance since the Monterrey summit and called for scaling-up such initiatives (United Nations, 2008a). As part of the evolving role of ODA to catalyse private finance at the time, the Doha Declaration encouraged MDBs to “continue to explore innovative ways to use their capital to leverage additional finance to foster development” (United Nations, 2002: 22). IDF enjoyed broad political support, evidenced for example in the adoption of resolutions by the UN General Assembly in 2009 which officially “recognizes the potential of various voluntary innovative sources of financing to supplement traditional sources of financing” (United Nations, 2010: 4) and in 2010 which “stresses the importance of scaling up present initiatives and developing new mechanisms” (United Nations, 2011a: 2). IDF also had political support from the world’s largest economies, with the 2009 G8 Summit Leaders’ Declaration calling “on the international community to consider, where appropriate, broadening innovative financing initiatives” (G8 Summit, 2009). In the context of the turn to the private sector in development at the time, IDF was framed as an approach to support or ‘leverage’ the private sector and mobilise private resources (see for example Development Committee, 2012). With this strong and broad support IDF had become an established element of development finance, and began to enter wider parts of development agendas, beyond financing. For example, IDF appeared in fora on aid effectiveness, such as the 2011 Busan declaration, where it was called on to mobilise private finance for development (OECD, 2011).

Around this time, the narrative surrounding IDF was almost unchanged since the millennium: the same resource shortfall story, and a gap to bridge to achieve the MDGs. Actual ODA levels remained well below the 0.7% target. The MDG Gap Task Force, the name of which clearly evokes the funding shortfall, was created in 2007 to support Goal 8, the global partnership, as “delivery on commitments has been deficient and has fallen behind schedule” (United Nations, 2008b: iii). With respect to ODA, the MDG Gap Task Force concluded there was “a large delivery gap in meeting commitments towards the MDG target of addressing the special needs of the least developed countries ... [and to provide] more generous official development assistance for countries committed to poverty reduction” (United Nations, 2008b: vii). In 2007, halfway to the countdown to 2015, average aid flows from OECD DAC donors stood at only 0.28% of their combined GNI, with only Denmark, Luxembourg, the Netherlands, Norway, and Sweden reaching the 0.7% target (United Nations, 2008b). There was also renewed momentum to the shortfall story supported by various estimates of the resources required to achieve the different specific MDGs, and not just the 0.7% ODA target as before. For example, each year, over \$10 billion was estimated to be needed to fight malaria and tuberculosis, \$25

billion to fight HIV/AIDS, \$36 billion for education, and \$30 billion to end hunger (UNDP, 2012). In comparison, ODA stood at a 2005 peak of just \$107 billion (boosted by debt relief in that year) before falling the next two years (United Nations, 2008b). As the UNDP notes, “while these estimates are subject to a high degree of uncertainty, it is clear that the amounts provided annually in Official Development Assistance are far from sufficient to meet the MDGs and other international development goals” (UNDP, 2012: 5). Furthermore, progress towards the MDGs, or rather the distance still remaining as 2015 drew near, also served to underline the need for more efforts and so more resources to be dedicated to development. Despite the increase in aggregate ODA to \$129 billion in 2010 (or 0.32% of OECD DAC member GNI), the 2011 report of the MDG Gap Task Force still identified a ‘large gap’ of \$153 billion in actual ODA delivery (United Nations, 2011b), which means levels needed to more than double. IDF was framed as one important solution to this gap between the resources needed to achieve the MDGs and available ODA (see for example United Nations, 2011b; Benn and Mirabile (OECD), 2014).

The Global Financial Crisis intensified calls for IDF to play an important role in financing development. The Secretary-General of the UN, Ban Ki-Moon, summarised the case for IDF as follows:

“The economic crisis makes innovative financing even more important. Traditional forms of financing for development are under threat. Economies are contracting. Official development assistance faces increased budgetary pressure. Commodity prices, private investment and remittances are down. Innovative financing must help to bridge the gap between what is available and what we need to reach the Millennium Development Goals. The economic crisis makes that job even harder. According to the World Bank, 45 million more people will fall into extreme poverty in 2009. Four hundred thousand children will die as a result. This comes on top of the food and energy crises, which pushed more than 130 million people into poverty in 2008. This year we expect the number of people living in urban slums to triple. Half the world’s population will remain below the poverty line of \$2 a day. We urgently need to strengthen and scale up existing innovative mechanisms, and explore new ones.” (I-8 Group, 2010: iii).

In the wake of the financial crisis, several arguments supported renewed momentum of the IDF agenda. To begin, the Global Financial Crisis threatened ODA flows to developing countries, as political priorities shifted and public support for government spending on aid fell

amidst austerity programmes in many of the OECD DAC members (Van Waeyenberge, 2015). This political climate intensified calls for IDF as an alternative and supplemental flow of resources to ODA. Furthermore, the economic crisis also reduced flows of foreign direct investment and had a direct adverse impact on economic growth and development, heightening concern over progress and the need for more resources (see for example I-8 Group, 2010; United Nations, 2010). This boosted the search for alternative sources of private resources. These calls were further reinforced by the context of the looming MDGs deadline.

Within a decade of the 2002 Monterrey Consensus first officially recognising the value of IDF, the number and variety of initiatives had proliferated. A diverse range of mechanisms and financial instruments had been proposed, backed by a range of public and private actors. The UN's 2009 Progress Report on Innovative Sources of Development Finance (see United Nations, 2009), requested at the 2008 Doha summit, notes that the concept of IDF extended to a diverse set of mechanisms such as thematic global trust funds, public guarantees and insurance mechanisms, cooperative fiscal mechanisms, equity investments, and growth-indexed bonds, among others. By this time, many ideas for IDF initiatives had been launched, for example the eight innovative mechanisms which comprise the I-8 Group (see Table 3): Unitaid, IFFIm, Advance Market Commitments (AMC), The Voluntary Solidarity Contribution for Unitaid, (PRODUCT)RED and The Global Fund, Debt2Health, the Carbon Market, and Socially Responsible Investments (SRI). These early initiatives include a range of financial mechanisms, such as bonds, guarantees, and swaps. They address a range of development issues, particularly in global health, and raise financing from a range of public and private actors, including capital markets, individuals and philanthropic foundations (see Table 3). In its peer review of existing IDF, the Leading Group presented 15 examples set up by around 20 countries, including many initiatives not part of the I-8 Group, such as Debt-for-Nature swaps, the Gavi Matching Fund, The Currency Exchange (TCX), and the Caribbean Catastrophe Risk Insurance Facility (CCRIF) (Leading Group, 2012a). Departing from the early ideas for IDF of tax-based mechanisms and SDR allocations, most of the initiatives which were actually launched are, in many ways, more oriented towards the private sector and private finance.

Table 3. I-8 Group innovative development finance initiatives

Name	Project	Development	Financing
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Unitaid	Solidarity levy to fund increased access to medicines and diagnostics	Targeted health interventions, esp. HIV/AIDS, tuberculosis, and malaria	Levy on airline tickets; donor governments; BMGF ⁴¹
International Finance Facility for Immunisation (IFFIm)	Frontload aid through vaccine bonds issued in capital markets backed by donor government pledges	Funds Gavi immunisation programmes	Capital markets; donor governments
Advanced market commitments (AMCs)	Guarantee a market to incentivise development of a pneumococcal vaccine	Backed by donor governments; organised through Gavi	Private investment (incentivised by guarantee); donor governments
Voluntary Solidarity Contribution for Unitaid	Voluntary micro-donation by people buying airline tickets	Funds Unitaid health programmes	Private individuals and companies
(PRODUCT)RED and the Global Fund	Brand to raise funds from proportion of profit on (PRODUCT)RED sales to fight AIDS in Africa	Funds the Global Fund HIV interventions	Individual shoppers; manufacturing companies
Debt2Health	Swap agreement where creditor relinquishes portion of old debt for debtor's domestic resources for health	Beneficiary must invest freed up resources in Global Fund programmes	Creditor governments
Carbon Market	Use funds from sale of EU CO2 emission allowances for ODA	Revenue used to fund ODA	Private companies; donor governments
Socially Responsible Investments (one example)	Mutual investment fund offers SRI products in partnership between French Development Agency and French bank	Investments in French Development Agency projects	National development agency; private investors

⁴¹ Bill and Melinda Gates Foundation.

It is worth highlighting that IDF has evolved quite significantly since emerging in the early 2000s to gaining prominence and becoming an established part of global financing for development agendas a decade later. As noted earlier, when the idea first emerged, the initial mechanisms proposed focused on tax-based instruments, such as currency transaction taxes and carbon taxes, or new SDR allocations. However, while one early initiative to launch, Unitaid, includes a solidarity levy on airline tickets, which in some ways is close to a tax, the vast majority of initiatives are markedly different in their financing mechanism. Mirroring broader shifts in development finance agendas at the time, the IDF initiatives which actually launched include a diverse range of mechanisms more oriented towards private finance and private sector actors (see Table 4). For some initiatives, private finance is an integral part of their financing mechanism, such as IFFIm or the Pandemic Emergency Facility which raise funds from investors in capital markets; AMCs which are built on guarantees to incentivise investment by large pharmaceutical companies; or (PRODUCT)RED which sources funds from individual shoppers through manufacturers. Other initiatives draw on financial instruments typically associated with financial markets, such as Debt2Health which is a financial swap agreement; IFFIm which issues bonds; the synthetic securitisation in Room2Run of an African Development Bank portfolio; or insurance products in CCRIF and the World Food Programme's R4 Rural Resilience (R4RR). As these examples indicate, there is a considerable range of mechanisms, financial instruments, and actors which constitute IDF. The next section reviews official definitions and a later section further examines the concept of IDF. It is the actually existing form of IDF which is of interest, the initiatives which moved from the drawing board to be launched and scaled-up.

Table 4. Examples of innovative development finance initiatives

Name	Project	Development	Financing
International Finance Facility for Immunisation (IFFIm)	Vaccine bonds issued in capital markets backed by donor government pledges	Funds Gavi immunisation programmes	Capital markets; donor governments
Caribbean Catastrophe Risk Insurance Facility (CCRIF)	Disaster risk management, mainly through parametric reinsurance	World Bank design; funds disaster recovery	Insurance markets; capital markets; member governments; donors
The Currency Exchange Fund (TCX)	Fund to develop local capital markets and manage currency risk	Targets development loans' currency risk	Equity from DFIs; currency markets

Disaster Risk Insurance Platform (DRIP)	Disaster, weather and health risk financing through bonds, derivatives and insurance	World Bank scheme to manage disaster risk	Capital markets; insurance markets; governments
Arise	South African investment bank focused on African financial institutions	DFI owned (FMO, NorFund) for financial inclusion	Equity from DFIs; investment in local banks
Room2Run	Synthetic securitisation of an AfDB portfolio to increase its lending	African Development Bank initiative	AfDB provides loans; Private investors buy mezzanine risk
R4 Rural Resilience (R4RR)	Insurance to mitigate climate change risks to food security	World Food Programme initiative	Donor governments; insurance markets
Private Sector Window (PSW)	Four facilities to catalyse private investment: risk mitigation, blended finance, local currency, and guarantees	World Bank (IDA – IFC – MIGA) programme	Private sector investors supported by World Bank instruments
Advanced market commitments (AMCs)	Guarantee a market to incentivise development of a pneumococcal vaccine	Backed by donor governments; organised through Gavi	Private investment incentivised by guarantee; donor governments
Gemloc advisory services	Create local currency bond markets	World Bank scheme	Capital markets; institutional investors
Managed Co-Lending Portfolio Programme (MCLPP)	Syndication platform for private investors to lend alongside IFC	IFC (World Bank) scheme	Equity or risk capital: IFC and institutional investors
African Risk Capacity risk pool (ARC)	Disaster risk financing: risk pooling and transfer facilities	Supported by several donor governments	Member country governments; donor governments
Pandemic Emergency Financing Facility (PEF)	Pandemic bond issued in capital markets with payout in the event of an outbreak	World Bank initiative	Capital markets; donor governments; World Bank

5.4 What is innovative development finance?

Given the diversity of IDF initiatives which launched, it is worth reviewing how IDF is defined. While IDF has become a central pillar in financing for development, it is not immediately obvious exactly what is or isn't IDF. The term IDF includes a vast range of different ideas, financial mechanisms, development goals, and actors. In fact, there is no widely agreed definition, and there are many perspectives, with some differences. A review of official definitions of IDF used by key organisations (the UN, World Bank, Leading Group, and OECD; see Table 5) reveals a number of important broadly shared characteristics:

1. Raises funds for development;
2. Involves the official public sector;
3. Involves international financial transfers;
4. Is complementary or additional to ODA;
5. Operates through a wide range of new or non-traditional financial mechanisms; and
6. Involves new partners in development cooperation, in particular private actors.

In summary, the initiatives must be considered international development – in their aims and in that the official sector and international transfers are involved (points 1-3); and the financial models must differ from traditional ODA – they complement ODA or are additional from new sources of funding, involve non-traditional financial mechanisms, and new partners (points 4-6). While these identified characteristics are helpful in defining IDF (for example, standard private philanthropy and domestic initiatives are excluded), they are not satisfactory on a standalone basis. The definition remains somewhat ambiguous as the characteristics do not clearly define one specific concept (for example, what do 'complementary' to ODA and 'traditional' mechanisms mean), and an IDF initiative need not fulfil all the characteristics (for example point 6). Furthermore, although many of these substantive characteristics are broadly shared, some definitions have a differing focus (see Table 5). For example, the UN and Leading Group focus on IDF being stable, predictable or long-term; the World Bank includes financial solutions which increase the efficiency of existing financial flows; and the OECD emphasises new approaches to scale up developmental activities. Nevertheless, in practice, IDF is used as a term for a relatively well-defined group of development initiatives (or financing mechanisms) with remarkably little debate over its use. A later section of this chapter, therefore, re-examines what holds the concept of IDF together, tackling the question of what IDF really is conceptually.

Table 5. Key organisations' definitions of innovative development finance

Organisation	Definition (bold = broadly shared characteristics, <i>italics</i> = differing focus)
UN	"Innovative sources to fund development today include a wide range of different types of mechanisms. They are not limited to taxes, but include voluntary contributions, market-based mechanisms, and loans guarantees as well as levies. They are characterized by being <i>stable, long-term</i> and complementary to official public aid and oriented towards widening the sharing of the benefits of globalization." (United Nations, 2009: 2, emphasis added) Innovative development finance in international public finance "includes those mechanisms that share all the following characteristics: • Official sector involvement, including the use of public sector resources, as well as structures in which official financing plays a catalytic role in leveraging private sector and/or philanthropic resources; • International cooperation and cross-border transfer of resources to developing countries; • Innovation, in that mechanisms are used in a new context or incorporate innovative features as to the nature of the resources, the way they are collected, or their governance structures. • An important desirable characteristic of the mechanisms considered would also be, as indicated, their ability to raise additional resources over and above existing, traditional forms of ODA." (United Nations, 2012: 9, emphasis added)
World Bank	Innovative development finance "involves non-traditional applications of solidarity, PPP, and catalytic mechanisms that (i) support fundraising by tapping new sources and engaging investors beyond the financial dimension of transactions, as partners and stakeholders in development; or (ii) deliver <i>financial solutions to development problems</i> on the ground" (Girishankar (World Bank), 2009: i, emphasis added) "Any financing approach that helps to: • Generate additional development funds by tapping new funding sources (that is, by looking beyond conventional mechanisms such

	as budget outlays from established donors and bonds from traditional international financial institutions) or by engaging new partners (such as emerging donors and actors in the private sector); • Enhance the <i>efficiency</i> of financial flows, by reducing delivery time and/or costs, especially for emergency needs and in crisis situations; • Make financial flows more <i>results-oriented</i>, by explicitly linking funding flows to measurable performance on the ground.” (World Bank, 2010a: 1, emphasis added)
Leading Group	An innovative development financing mechanism is “a mechanism for raising funds for development. The mechanisms are complementary to official development assistance. They are also <i>predictable and stable</i>. They are closely linked to the idea of global public goods and aimed at correcting the negative effects of <i>globalisation</i>.” (Leading Group, 2012b, emphasis added)
OECD	Innovative financing comprises “mechanisms of raising funds or stimulating actions in support of international development that go beyond traditional spending approaches by either the official or private sectors, such as: • New approaches for <i>pooling private and public revenue</i> streams to <i>scale up</i> or develop activities for the benefit of partner countries; • New revenue streams (e.g. a new tax, charge, fee, bond raising, sale proceed or voluntary contribution scheme) earmarked to developmental activities on a multi-year basis; • <i>New incentives</i> (financial guarantees, corporate social responsibility or other rewards or recognition) to address market failures or <i>scale up</i> ongoing developmental activities.” (Sandor, Scott and Benn (OECD), 2009: 3, emphasis added) Mechanisms for raising funds or stimulating actions in support of international development that go beyond traditional spending approaches and fulfil four criteria: • Official sector involvement: clear and visible stake by official sector; official sector involvement should be substantial; excludes purely private mechanisms such as philanthropy and remittances;

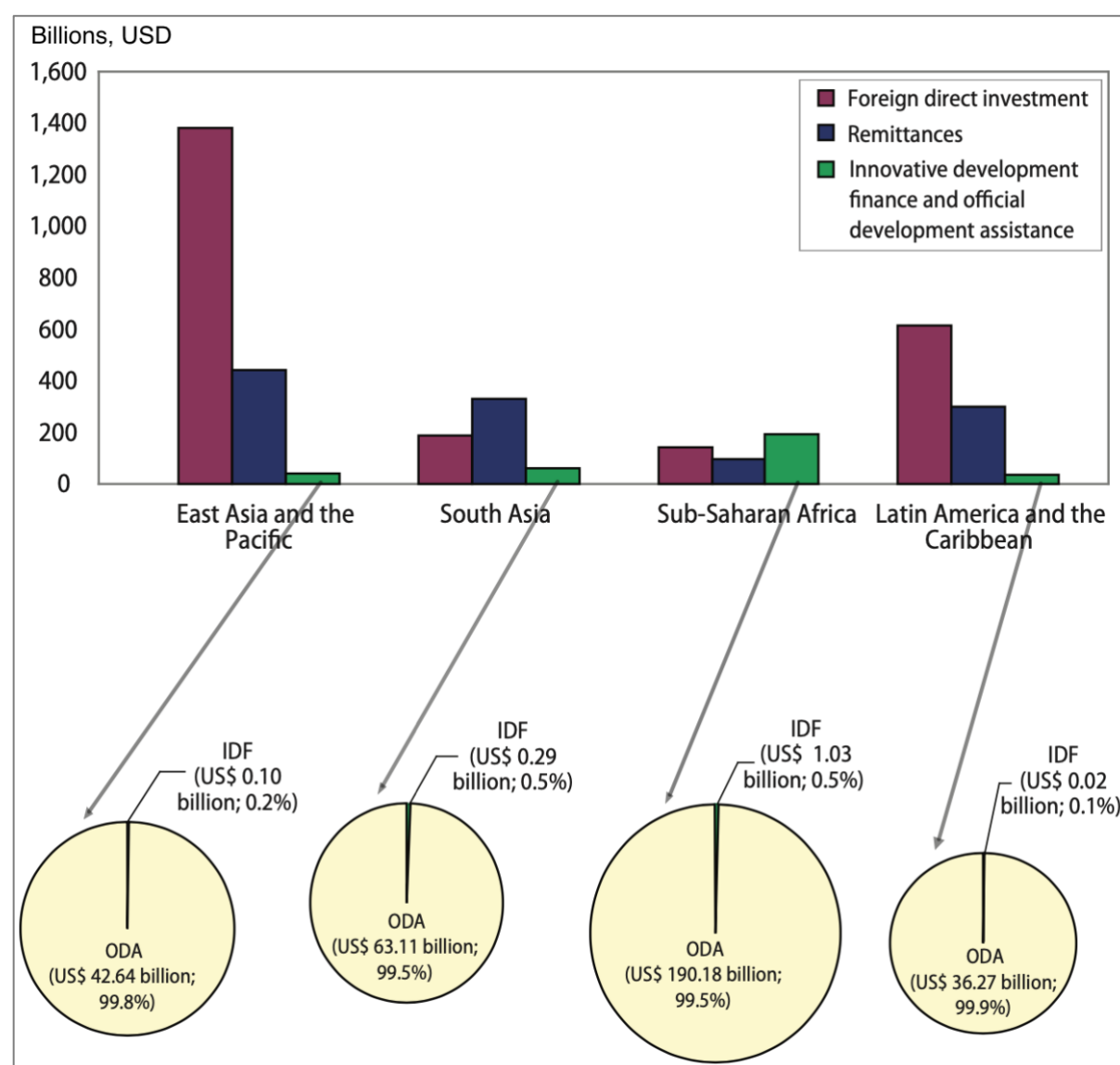
- **Mobilisation** of substantial finance: mechanisms that mobilise **additional** funding; excludes mechanisms concentrating on effective use of existing finance;
- Ready for prime time?; early-stage and practical innovations, or technically advanced proposals with wide political support close to implementation, or implemented schemes not yet at scale; excludes ideas still on drawing board and long-mainstreamed mechanisms;
- **Cross-border** resource transfers: mechanisms involve international donor funding, international capital markets or other cross-border transactions; excludes purely domestic mechanisms (e.g. local taxes).

(Sandor (OECD), 2011: 78, emphasis added)

Related to the definition of IDF, are estimates of its scale. While IDF has become a significant part of global financing for development discourse and agendas, and many individual initiatives are large in scale, it is important to keep in perspective the total amount of financial flows in IDF relative to other development finance. Estimating the overall scale of IDF is challenging, not least because of the varying definitions of what should or shouldn't be included. For the earlier IDF period from 2000 to 2008, the World Bank, drawing on its broad definition, estimates innovative fundraising generated \$57.1 billion in official flows, which represented just 4.5% of total gross ODA and bond proceeds from international financial institutions over that period (Girishankar (World Bank), 2009). Over the same time period, innovative financial solutions on the ground used an estimated \$52.7 billion in official flows, or just 5.7% of official flows to developing countries (Girishankar (World Bank), 2009). Importantly, much of the volume of both the fundraising and spending on the ground was oriented towards private finance. On the fundraising side, the "lion's share [...] involved new types of bonds by multilateral and national developments [banks] to leverage the capital markets" (Girishankar (World Bank), 2009: 8). On the financial solutions side, the "lion's share involved catalytic mechanisms to promote private investment" and "a second major component involved PPPs that leveraged private finance" (Girishankar (World Bank), 2009: ii). The UN, drawing on a narrow definition, presents more limited estimates of the scale of IDF in its 2009 progress report at \$2.5 billion in additional funding since 2006 (United Nations, 2009). By 2012, "the financial contribution of innovative development financing has thus far been extremely limited" (United Nations, 2012: 126), raising financing of \$5.8 billion for health and \$2.6 billion for climate and other environmental programmes since 2002. For 2006 to

2010, UN estimates present the amount of IDF as “extremely small relative to ODA in all regions”, ranging between 0.1% and 0.5% of ODA (United Nations, 2012: 106). While significant, IDF remains relatively small compared to total ODA, traditional private capital flows or foreign direct investment, remittances, and South-South cooperation (see for example Figure 14).

Figure 14. Innovative development finance relative to other sources of external finance of developing countries by region 2006-2010 (Source: United Nations, 2012)



Similarly, it is important to keep in perspective actual financial flows in IDF relative to potential and expectations, and whether those flows are additional to ODA. The scale of actually launched and taken-off IDF initiatives is smaller than early expectations and estimates of

potential. UN estimates of the potential of SDR allocations and taxes, both ideas that date from the early days of IDF, but which have not taken-off, suggest IMF allocations of SDRs could raise around \$100 billion per year, an international carbon tax \$250 billion per year, and a small currency transaction tax \$40 billion (United Nations, 2012). This connects to similar discrepancies between celebratory stories and reality in other financialised areas, such as conservation finance (Dempsey and Suarez, 2016) or index-based weather insurance (Johnson, 2022). Finally, beyond the aggregate scale of IDF, there are significant concerns that the amount is not additional to ODA (United Nations, 2012; UNDP, 2012), a particularly important issue for recipient countries (United Nations, 2012), which further underlines the importance of not losing sight of the bigger picture. With this perspective, the next section returns to the next phase in the story of IDF, the post-2015 SDG era.

5.5 Post-2015: Innovative development finance becomes a core part of development finance

By 2015, despite the small relative share, innovative development finance was being positioned as a core pillar of financing for development agendas in the post-2015 SDG era, in the context of a broader turn to private finance (see Chapter 2). The official outcome of the third financing for development conference, the Addis Ababa Action Agenda stated:

“We welcome the progress made since Monterrey to develop and mobilize support for innovative sources and mechanisms of additional financing, in particular by the Leading Group on Innovative Financing for Development. We invite more countries to voluntarily join in implementing innovative mechanisms, instruments and modalities which do not unduly burden developing countries. We encourage consideration of how existing mechanisms, such as the International Finance Facility for Immunisation, might be replicated to address broader development needs. We also encourage exploring additional innovative mechanisms based on models combining public and private resources such as green bonds, vaccine bonds, triangular loans and pull mechanisms, and carbon pricing mechanisms” (United Nations, 2015b: 33).

The call is clear: scale-up existing IDF initiatives and launch new ones; in particular, initiatives which combine public and private resources. In the Addis Agenda, IDF has a role to play in financing development across a vast range of sectors, including financial inclusion (clause

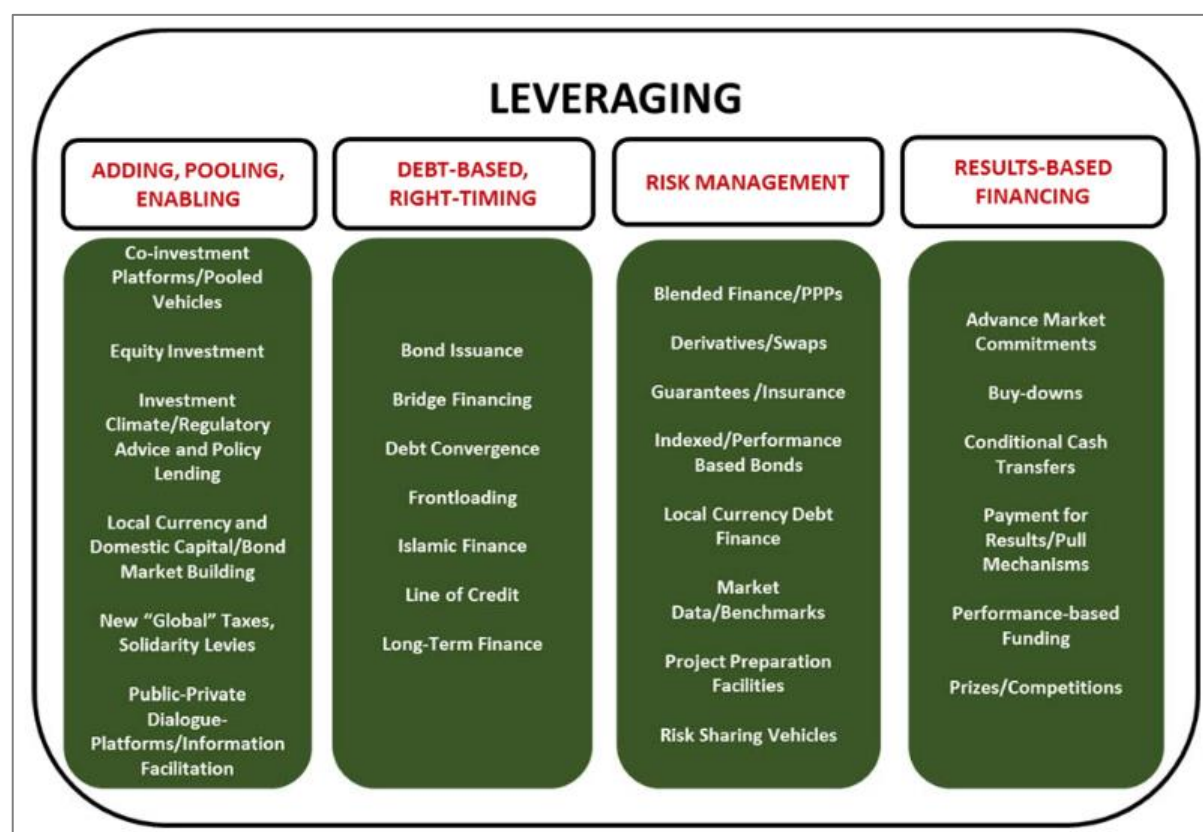
39); supporting MSMEs⁴² (clause 43); foreign direct investment in least developed countries, landlocked developing countries, small island developing states, middle-income countries, and countries in conflict and post-conflict situations (clause 46); conflict and natural disasters (clause 66); gender and health (clause 77); trade finance (clause 81); and financial stability (clause 107) (United Nations, 2015b). Since the 2015 summit, IDF has been an integral part of the ECOSOC⁴³ Forum on Financing for Development follow-up process to the Addis Agenda (see United Nations, 2016a; 2016b). IDF enjoyed such broad support at this time that it also became an element of humanitarian relief funding (see for example WEF, 2018), with its financial logic influencing the idea of 'Humanitarian Investing' (WEF, 2019b) and the launch of innovative humanitarian financing models, such as the International Committee of the Red Cross's (ICRC) Humanitarian Impact Bond (ICRC, 2017).

IDF is at the centre of the transformation of the post-2015 financing for development agenda in the SDG era. In official discourse it is no longer a peripheral or a separate element of a wider agenda, but the mechanism through which to deliver financing for development agendas, which were increasingly oriented towards private finance and focused on financial solutions (Chapter 2). IDF was an important part of the 'from billions to trillions' agenda, promoted by the World Bank, IMF and other MDBs (see Development Committee, 2015). Specifically, IDF mechanisms were at the core of calls for the MDBs to support the role of private finance in financing for development. A whole section of the 'From billions to trillions' note is dedicated to "financing solutions to help achieve the SDGs" as "innovation in ways to find and use additional, efficient and effective financing solutions will be important" (Development Committee, 2015: 21). At this time, development funding solutions are explicitly financial (discussed further below), and the note suggests a long list of potential financial instruments framed around 'leveraging', focused on private resources (see Figure 15).

⁴² Micro-, Small and Medium-sized Enterprises.

⁴³ Economic and Social Council (UN).

Figure 15. Innovative financing solutions in 'From billions to trillions' note (Source: Development Committee, 2015)



The key narrative justifying IDF remains a 'financing gap', however, this narrative also becomes a part of the overall narrative of post-2015 development finance (beyond IDF). The fundamental rationale for IDF in the SDG era remains remarkably similar to under the MDGs: achieving the SDGs requires significantly more funding than aid will or can provide (see for example World Bank, 2018a; United Nations, 2015b). In 2015, the final MDG Gap Task Force report noted that ODA stood at 0.3% of GNI in 2014⁴⁴, well below 0.7%, and concluded that meeting the target "will remain crucial" but that, going forward, special attention should be given to "innovative financial uses of ODA" which "will become more important than ever in the achievement of the post-2015 development goals" (United Nations, 2015c: xiv). However, in the post-2015 era, this narrative of a financing gap is no longer confined to justifying IDF. The 'financing gap' becomes a central part of wider financing for development agendas, with frequent references in the 2015 Addis Agenda whereas there were none in the 2002 Monterrey Consensus (Chapter 2). Specifically, the financing gap is often used to justify the turn to private finance. For example, the World Bank's agenda to maximise finance for development,

⁴⁴ ODA increased from \$81 billion in 2000 to \$134 billion in 2014 (United Nations, 2015c).

presents private finance as the solution to a \$2.5 trillion financing gap (see Figure 4 in Chapter 2). So, the financing gap narrative, which accompanied IDF since its early days, can be observed in wider post-2015 financing for development agendas.

Going further, IDF and wider post-2015 development finance agendas are increasingly difficult to distinguish and disentangle. For example, the opening statement of the World Bank's 2018 financing for development brochure states "Financing for Development entered a new era in July 2015, when the global community agreed to the Addis Ababa Action Agenda, a framework and set of commitments for financing the Sustainable Development Goals. Since this will require far more funding than aid can provide, the World Bank Group, together with other multilateral development banks and the IMF, committed to use billions in investment funding, aid, and grants, *in innovative ways* to catalyze trillions in financing of all kinds." (World Bank, 2018a: 2, emphasis added; see Figure 16). There is an evolution here – IDF is no longer just one element of financing for development but framed as the way of using development funding. Is something more fundamental changing in how IDF relates to post-2015 development finance agendas?

Figure 16. Snapshot of World Bank 'Financing for development' brochure (Source: World Bank, 2018a, emphasis added to highlight IDF characteristics)

Financing for Development: New Approach, New Commitment

Financing for Development entered a new era in July 2015, when the global community agreed to the [Addis Ababa Action Agenda](#), a framework and set of commitments for financing the [Sustainable Development Goals](#). Since this will require far more funding than aid can provide, the World Bank Group, together with other multilateral development banks and the IMF, committed to use billions in investment funding, aid, and grants, in innovative ways to catalyze trillions in financing of all kinds. In Hamburg in 2017, the G20 reinforced the MDBs' role in catalyzing development finance.

Key enablers of the Financing for Development agenda:

- **Mobilizing all sources of finance and increasing their combined impact.** Integrative thinking and creative approaches are needed to mobilize finance, make it complementary and increase its impact.
- **Leveraging public finance.** Scarce public finance, both international and domestic, must be used where they have greatest impact and to catalyze other sources of finance. The capacity for domestic resource mobilization could be improved in many countries.
- **Crowding in the private sector in financing development.** As the largest potential source of finance, the private sector can play a larger role by investing, driving innovation, and improving delivery.
- **Strengthening MDBs' capacity to catalyze finance.** Multilateral development banks will use their balance sheets and platforms to increase private capital and other financial flows.
- **Harnessing technology and disruptive business models.** Technology and innovative business models offer unprecedented opportunities to redefine and accelerate paths to development. They make possible a world with universal access to government services, financial services, and global markets.
- **Improving investment data.** Better data, including big data, and diagnostic tools are needed to assess investment risks and returns in emerging market and developing economies.
- **Creating development finance partnerships and building multi-stakeholder platforms.** A new level of collaboration is needed across a range of stakeholders to meet financing challenges.

Key ideas and characteristics of IDF have been embraced and subsumed into wider post-2015 financing for development agendas. For example, first, the shift towards an all sources of finance approach, evident in ‘from billions to trillions’ and ‘maximising finance for development’, which does not differentiate as markedly between public and private finance or concessional and non-concessional. Second, the private finance turn which focuses on leveraging or mobilising private financial resources for development, framing public finance as scarce. A third example is the shift from a *funding* for development logic to a *financing* for development. For example, this is captured in the World Economic Forum’s (2019a) paper “From funding to financing: Transforming SDG finance for country success”. Fourth, specific financial models and initiatives have become standard parts of financing for development approaches – for example, ‘innovative’ models from IDF’s earlier days such as various social bonds or social investments. Tentatively, IDF could be understood in this ideational and material sense as a precursor to the post-2015 development finance agenda.

In this way, IDF is part of the fundamental change in dominant ideas and assumptions on financing for development post-2015, which de-centres ODA to include a broader source of funds, particularly private resources, different financial instruments, and new (private) partners. This is not to say that all of post-2015 development finance agendas can be traced to or explained by IDF, only that IDF has been influential. In particular, some important characteristics of IDF have been subsumed into wider agendas. Importantly, the reverse can also be said. There is evidence of broader trends in development finance shaping the trajectory of IDF. Notably, the increased role of the private sector in the MDG era and the turn to private finance in the SDG era are paralleled in the evolution of actually launched IDF initiatives, which are overwhelmingly oriented towards private finance, in contrast to early ideas which focused on taxes. In that broader context, IDF becomes the mechanism through which to mobilise private resources for development finance (see for example World Bank, 2020a).

5.6 So, what really is innovative development finance? A financial solution

Given IDF is at the centre of development finance agendas, it is important to critically analyse what it really is conceptually, going beyond official definitions outlined above. This section’s analysis is structured around the three parts of the term ‘innovative development finance’. First, I ask whether IDF initiatives are ‘innovative’. Second, I turn to ‘development’ and what

claims IDF makes. Third, I address the ‘finance’ dimension. Conceptually, I argue IDF is a financial solution to a development challenge, where IDF initiatives are made up of a bundle of ordinary financial instruments. Finally, linking back to Chapter 2, this section concludes IDF represents the financialisation of development.

5.6.1 *Innovative* development finance? Ordinary market standard financial model

For IDF, ‘innovative’ could mean original financial instruments that constitute the financial mechanism or novel financial logics which support the model. This section deconstructs the financial model of the three case studies to examine their constituent financial instruments and financial logics. Examining the cases reveals that both the financial instruments and financial logics are ordinary and market standard, or ‘plain vanilla’ in financial market jargon.

Bonds issued in capital markets are at the heart of IFFIm’s financial model (see deconstruction in Table 6). IFFIm’s vaccine bonds are overwhelmingly fixed rate notes (29 out of 35 issued by 2019), typically issued at a price slightly below the nominal face value amount with redemption at par. Many of these, 23 between 2008 and 2013, were issued as Uridashi bonds⁴⁵ in Japan (more discussion in Chapter 6). The floating rate notes are USD benchmark notes or structured as sukuk⁴⁶. All these bonds are market standard structures. In the words of one of the principal legal architects of the transaction structures, from the perspective of capital markets, “the way the bonds were issued was very market standard and deliberately so. IFFIM issues are [...] plain vanilla benchmark type transactions” (Rice in McCormick, 2007: 82). Furthermore, bonds have been a part of the development landscape for many decades. For example, in 1989 and the early 1990s, under the Brady Plan debt relief programme, Brady Bonds converted bank debt into a variety of bonds (either par bonds with below market interest rates or discount bonds with a lower face value than the outstanding debt). Alongside bonds, IFFIm’s financial model includes several other financial instruments. There are unremarkable long-term grant agreements between donor governments and Gavi, and simple cash payments such as fees. In addition, there are market standard currency and interest rate hedging instruments (swaps) in transactions with the World Bank, and ordinary financial securities held in an investment portfolio managed by the World Bank (money market

⁴⁵ Uridashi bonds are typically denominated in foreign currency and sold to retail investors seeking higher returns than the low domestic interest rate in Japanese Yen (more detail in Chapter 6).

⁴⁶ A sukuk is a financial certificate used in Islamic finance that complies with Sharia law. Sukuk were developed as an alternative to conventional bonds which are not considered compliant. It is similar to a bond in that investors receive a stream of payments until maturity; however, these payments are considered profit not interest. Additionally, a sukuk is structured so that investors have direct ownership interests in an asset whereas bonds are interest-bearing debt obligations.

instruments, government and agency obligations, corporate and asset-backed securities). This is not to say the financial instruments are simple or entirely straightforward, but that they are market standard bonds, currency and interest rate derivatives, and financial securities.

The financial logic at the core of IFFIm's financial model is to 'frontload' aid from donor governments for Gavi's immunisation programmes. To achieve this 'frontloading', IFFIm borrows from investors in capital markets through bonds, and makes interest and principal repayments funded from receipts from donor governments. The financial model, therefore, is fundamentally rooted in the ordinary concept of borrowing. Other financial logics supporting IFFIm's model are to manage currency and interest rate risk through derivatives and manage cashflow through an investment portfolio – both market standard practices. In summary, IFFIm's financial model is a bundle of market standard financial instruments, organised around ordinary financial logics, raising questions over the 'innovative' label.

A similar picture emerges in the cases of CCRIF and TCX. CCRIF's financial model (deconstructed in Table 7) is centred on parametric insurance contracts to cover disaster risk for member governments and its reinsurance programme, which is made up of reinsurance contracts with reinsurers, catastrophe swaps with the World Bank, and a catastrophe bond issued by the World Bank. This insurance and reinsurance model is complex; however, it is constituted of financial instruments which are market standard in the insurance industry – parametric (re)insurance contracts, catastrophe swaps, and catastrophe bonds. The latter two are insurance-linked securities, a collective term for financial instruments whose value is driven by insurance loss events (see Johnson, 2013, 2014). CCRIF's financial model also includes other market standard financial instruments, including loan agreements, financial securities held in an investment portfolio, and simple cash payments such as fees. CCRIF's core aim to manage disaster risk is achieved through three key financial logics: pooling disaster risk across member governments, insurance, and transferring risk to capital markets (through reinsurance and insurance-linked securities). Additional financial logics include straightforward borrowing and cashflow management through an investment portfolio. Like with IFFIm, these financial logics are fundamentally ordinary, and indeed common, market standard practices for risk management and financing.

Deconstructing TCX's financial model (see Table 8) also reveals it is made up of market standard financial instruments. Its core goal, to create local currency markets, is achieved through derivative financial instruments and bonds. TCX enters into derivative transactions with its shareholders to hedge their currency exposure, mainly through cross currency swaps but also foreign exchange forward contracts. TCX also offsets its local currency risk exposure

in the market through cross currency swaps and sells currency risk through local currency linked bonds issued by a counterparty. Like CCRIF's model, these instruments are complex. Again however, as with CCRIF, from the perspective of financial markets, swaps and bonds are market standard. As the annual report states, "TCX assumes foreign currency and interest exposures through plain vanilla derivative products such as swaps and forward rate agreements, using standard ISDA⁴⁷ documentation" (TCX Annual Report 2007: 28). A range of other market standard financial instruments complete TCX's model, including equity shares held by TCX's investors, loan agreements, guarantees, financial securities, and cash payments such as fees. The financial logics of TCX's market creation efforts are to hedge currency risk for shareholders and to sell currency risk to investors. Perhaps more than IFFIM and CCRIF, these logics could be considered complex. Nevertheless, exchanging or swapping currencies and transferring risk to investors remain ordinary logics in financial markets. Finally, TCX's model also relies on the financial logics of holding shares, borrowing, guarantees, managing currency risk through derivatives, and managing liquidity through a portfolio of financial securities. As with the other cases, these financial logics are fundamentally ordinary, market standard practices for financing and risk management.

Table 6. Deconstruction of IFFIm's financial model

Financial instrument	Flow of money	Details
	# in map in Figure 10	
Grant agreement	1, 5	Long-term legally binding pledges between donor governments and Gavi
Bond	2, 6	IFFIm issues bonds in capital markets to investors, mainly fixed rate notes with some floating rate notes and sukuks
Derivative	3	Currency and interest rate swaps between IFFIm and the World Bank for exposure on donor government grants and payments on bond
Financial securities	7	Investment portfolio consisting of money market instruments, government and agency obligations, corporate and asset-backed securities held as funds in trust by World Bank

⁴⁷ International Swaps and Derivatives Association.

Cash payment	4, 8	Disbursements from IFFIm to Gavi; fees for financial institutions and professional services
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Table 7. Deconstruction of CCRIF's financial model

Financial instrument	Flow of money # in map in Figure 11	Details
Insurance contract	3, 7	Parametric insurance contracts for member governments with CCRIF to cover disaster risk
Loan agreement	4	Loan agreements between some member governments and the Caribbean Development Bank and/or World Bank for premiums and participation fees
Reinsurance contract	5, 8	Parametric reinsurance contracts for CCRIF with reinsurers to cover disaster risk
Derivative	6, 9	Catastrophe swaps between CCRIF, intermediated by the World Bank, and capital market counterparties
Bond	6, 9	Catastrophe bond issued by the World Bank in capital markets
Financial securities	10	Investment portfolio consisting of mutual funds, exchange-traded funds, exchange-traded options, equity investments, corporate debt securities, sovereign debt securities, term deposits, and derivative instruments (forward exchange and futures contracts, credit default swaps, commodity and equity contracts), managed by asset manager
Cash payment	1, 2, 11, 12	Donor grant payments; participation fees from member governments; fees for service providers; trust expenses

Table 8. Deconstruction of TCX's financial model

Financial instrument	Flow of money # in map in Figure 12	Details
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Equity share	2, 15	Shareholders hold equity shares in the TCX Fund, paying share premiums and receiving redemption payments and/or dividends
Loan agreement	3, 4, 6, 8, 14	Subordinated convertible debt agreements between donors and the TCX Fund; loan agreement between DFI lender and the TCX Fund; loan agreements between TCX's investors and end borrowers
Guarantee	5, 7	Guarantee facility provided by FMO to the TCX Fund; guarantees for credit risk from TCX's shareholders to the TCX Fund
Derivative	7, 10, 11, 12	Cross currency swap agreements and foreign exchange forward contracts between the TCX Fund and either its investors or end borrowers, or between TCX's local partner and end borrowers; trading portfolio consisting of cross currency swaps and foreign exchange forward contracts; hedging portfolio consisting of cross currency swaps and foreign exchange forward contracts; currency hedging agreements between TCX and its investors with respect to local currency bonds
Bond	12	Local currency bonds issued by TCX's investors in capital markets
Financial securities	9	Liquidity portfolio consisting of discount/commercial papers, floating and fixed rate bonds, US treasury bills, and money market funds
Cash payment	1, 13	Incorporation costs; fees for service providers

Deconstructing these IDF initiatives reveals the financial models are a bundle of market standard financial instruments organised around ordinary financial logics. This finding is not limited to these case studies. For example, Unitaids financial model rests on a small levy or micro tax on plane tickets, Advanced Market Commitments provide a guarantee, and Debt2Health is structured as a swap agreement. To re-emphasise, this is not to say there is

nothing new to these models in development or that IDF initiatives are simple or straightforward. They are smart, typically complex (even confusing⁴⁸), configurations of financial instruments and logics bundled into a financial solution. However, they are not ‘innovative’ in the sense of inventing novel financial instruments or original logics. Furthermore, the financial instruments and logics are not all new to development finance. This challenges their claim to be ‘innovative’. There are links here to McGoey’s (2014) finding that most ‘new’ philanthropic initiatives cannot be called innovative, and Mazzucato and Lazonick’s work challenging the idea the private sector is inherently more innovative than the public sector, and highlighting the role of the state in innovation (Mazzucato, 2013; Lazonick and Mazzucato, 2013). Of course, in any case, once an IDF initiative is launched and reaches a certain scale, the financial model is no longer ‘innovative’ as such. However, when IDF emerged at a particular moment in the early 2000s (a policy window, see Kingdon, 2003 [1984]), the ‘innovative’ label likely served a political purpose to promote and garner support for a set of ideas and initiatives, with the larger aim in this context to increase and broaden financing for development in the MDG era. What is newer or, perhaps, more novel about IDF, is applying these financial models grounded in standard financial market practices to development challenges.

5.6.2 Innovative development finance? Three core development claims: Leverage private finance, manage risk, and create markets

IDF initiatives are closely anchored to the development world or sector. First, in the sense that IDF is clearly situated within international development discourse, policies, and practices – as extensively discussed earlier in this chapter. Second, influential development actors have actively pushed the IDF agenda and supported initiatives, including the World Bank, UN, and OECD DAC members. Third, in the sense that, at a macro-level, IDF initiatives aim to address genuine development challenges. For example, IFFIm aims to increase access to immunisation in low-income countries, CCRIF’s goal is to support recovery after disasters in the Caribbean and Central America, and TCX aims to increase access to finance and reduce exposure to financial volatility in countries without so-called hard currencies. Health, disasters, and access to finance are genuine, important development challenges, which need support including funding to achieve the SDGs. In this way, IDF is not necessarily tackling new or different development challenges, but rather the difference is in the approach, specifically adopting a financial approach.

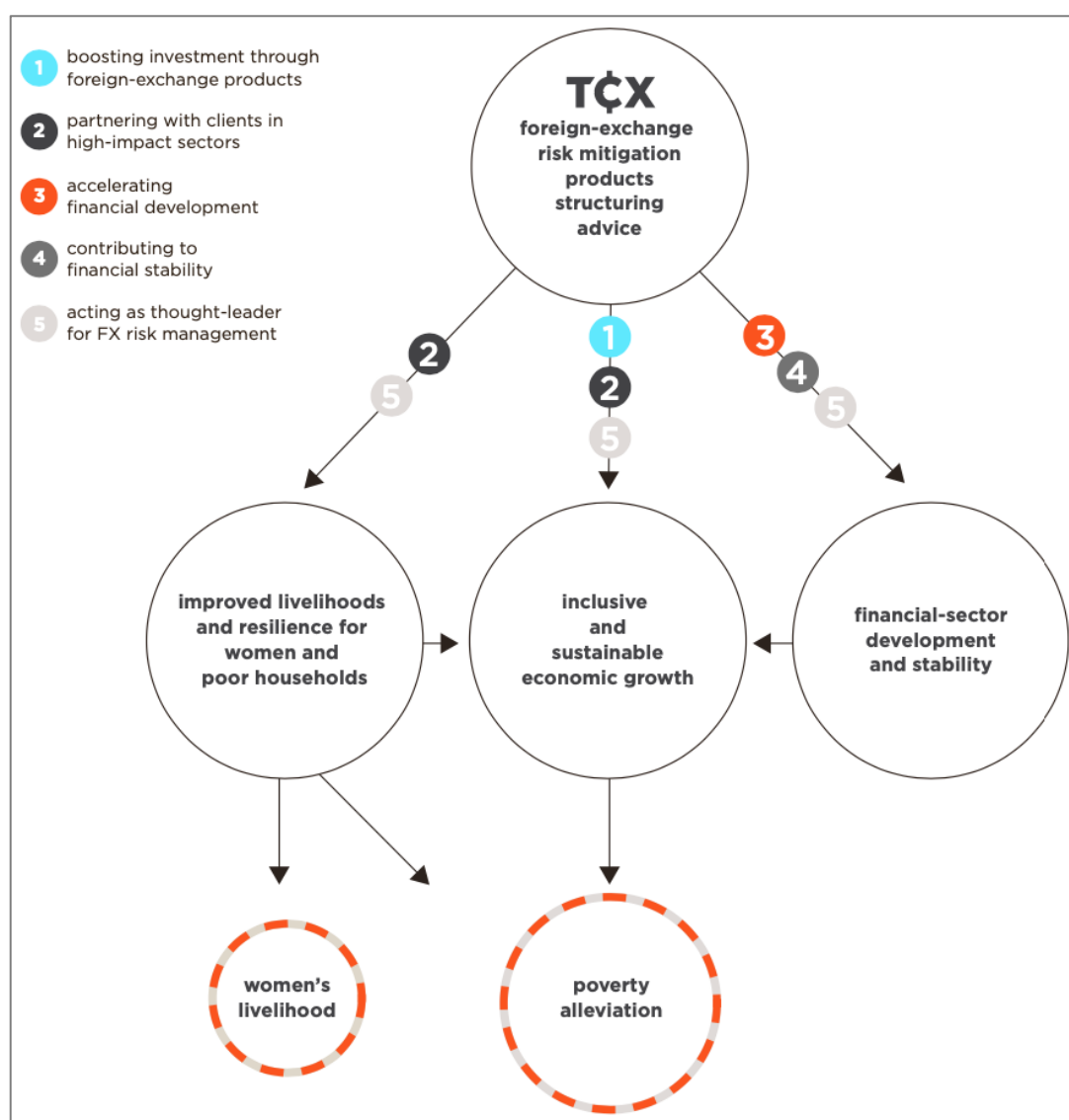
⁴⁸ See Erikson (2019) on the World Bank’s Pandemic Emergency Facility being complex and confusing, even to those working in the finance industry and on the PEF itself.

IDF can be characterised by a set of three core claims: to leverage private finance, to manage risk, and to create markets. These claims contribute to defining IDF as a concept, in addition to the characteristics identified above in official definitions. In an extensive review analysing development initiatives which are considered or labelled IDF (see Table 4 for examples that were included), these three claims consistently sit at the heart of initiatives, with very few exceptions. For example, IFFIm claims to leverage private finance, in other words to mobilise private financial resources to support immunisation. CCRIF aims to manage disaster risk, meaning limit or contain the financial risks associated with disasters. TCX's goal is to create local currency markets, understood as the aim to add to or increase the volume of financial transactions which constitute local currency markets. Any given IDF initiative may make one, two, or three of these claims, with a varying degree of emphasis, and these claims may of course sit alongside other development claims. Notably, all three of these claims are *financial* claims, and relate to an initiative's financial model.

These financial claims come to represent an initiative's development claims, and reveal how the conceptualisation of development in IDF initiatives is *financial*. On the one hand, the financial claims are framed as integral to development progress. For example, for IFFIm, leveraging private finance is an integral part of frontloading, and it is “through this funding mechanism, known as ‘frontloading’, [that] IFFIm has helped Gavi to immunise more children sooner and has made vaccines more widely available” (IFFIm, 2022). This is associated with a significant development impact; according to IFFIm “vaccines are one of the best buys in health. Each dollar of investment in immunisation will give a return of 21 dollars, rising to 54 dollars when broader societal benefits are included” (IFFIm, 2022). CCRIF manages disaster risk to reduce governments' financial vulnerability after disasters and this is made equivalent to progress in development. At its launch, CCRIF's vision was to “help our members to meet sustainable economic development goals and to support a proactive stance towards disaster risk mitigation, to the ultimate service of Caribbean people” (CCRIF Annual Report 2007-2008: 2). TCX's ‘Theory of change’ frames creating local currency markets and foreign exchange instruments as contributing to improving livelihoods and resilience, increasing economic growth, and developing the financial sector, which all ultimately alleviate poverty (see Figure 17; see also TCX, 2018). On the other hand, achieving the financial claims alone is often presented as sufficient for an IDF initiative's success. IFFIm, for example, celebrates mobilising private finance and TCX reports on its market creation. The financial claims are assumed to align with beneficial outcomes, without critical engagement. In the context of the MDG era focus on poverty reduction, it is striking that across all three case studies' first annual reports there is only one mention of poverty, and that is only in a brief description of what the

IBRD is (IFFIm Annual Report 2006; TCX Annual Report 2007; CCRIF Annual Report 2007-2008). This isn't an isolated pattern. For example, with CCRIF, poverty is not mentioned in any of the World Bank's three operational reviews (World Bank, 2008, 2010b, 2011) and poverty is only mentioned in the World Bank's preparatory work on CCRIF's design as an impact of disasters (World Bank, 2007a). The financial claims are not explicitly shown to connect to poverty reduction, welfare, or other related goals, and there is no discussion or acknowledgement of frictions or misalignment between these goals. In these ways, the financial claims come to stand in as development claims.

Figure 17. TCX's 'Theory of change' (Source: TCX, 2018)



The three (financial) development claims connect with wider studies of the financialisation of development. At a high level, there are parallels between IDF's financial claims representing development claims and the broader idea of financialisation as development (Mawdsley, 2018b). At a more detailed level, the three financial claims IDF makes – leverage private finance (1), create markets (2), and manage risk (3) – appear elsewhere in studies of the financialisation of development. For example, Hunter and Murray (2019) place the aim to leverage private sources of finance (1) at the centre of their analysis of the reorganisation of healthcare systems and the financialisation of development. In analysing a financialised agricultural development initiative, Brooks (2016) reveals the initiative operates within the wider aim to mobilise private finance in the agri-food sector (1), and that a core goal is to develop markets by connecting smallholder farmers (2). Erikson (2019) uncovers how the architects of the Pandemic Emergency Facility sought to both create a pandemic bond market (2) and manage pandemic risk (3). In examining the financialisation of development, Gabor (2021) has highlighted the role of the state and multilateral development banks in managing risk (3), specifically de-risking. In the IDF case studies and these examples, development progress is conceived of financially, and this is operationalised through financial development claims.

In parallel to the three development claims, actually launched IDF initiatives, typically oriented towards the private sector, make a final important claim: to deliver (private) profit. This claim is part of delivering on the 'win-win' promise (noted in Chapter 2), which captures the popular view that development initiatives can deliver publicly beneficial development outcomes and private benefit in the form of profit or financial return, like in social and green finance projects (see Olwig, 2021; Rosenman, 2019b; Cohen and Rosenman, 2020). As analysed in detail in Chapter 6, IFFIm, CCRIF, and TCX all deliver returns for financial investors and intermediaries. This is a common pattern across studies of the effects of financialisation in development and social initiatives, for example of renewable energy in South Africa (Baker, 2015), the welfare state in the UK (Dowling, 2017), housing in the US (Rosenman, 2019a), and post-earthquake reconstruction in Nepal (Paudel, Rankin and Le Billon, 2020).

5.6.3 Innovative development *finance*? Financial solutions made up of bundles of financial instruments

This section engages with IDF as a *financial* solution to the development challenges it seeks to address. The section analyses how different elements of IDF are financial: its aims and approach, instruments and mechanisms, logics, and actors. Building on the previous section,

here I underline how IDF's aims and approaches are financial. Development challenges are translated into specific financial development claims – to leverage private finance, manage risk, and create markets. A brief thought experiment on alternative solutions to the case studies underscores how IDF's approach is explicitly financial (for more on alternatives, see Chapter 8). For example, IFFIm focuses on leveraging private finance through vaccine bonds. Instead, efforts to increase access to immunisation could focus on healthcare system infrastructure, or tax system reform for low-income countries to increase tax receipts. Similarly, projects to support post disaster recovery could centre on emergency supplies and equipment, or improving the resilience of physical infrastructure. Chapter 7 picks up on these themes to analyse the problematisation process in IDF in more detail.

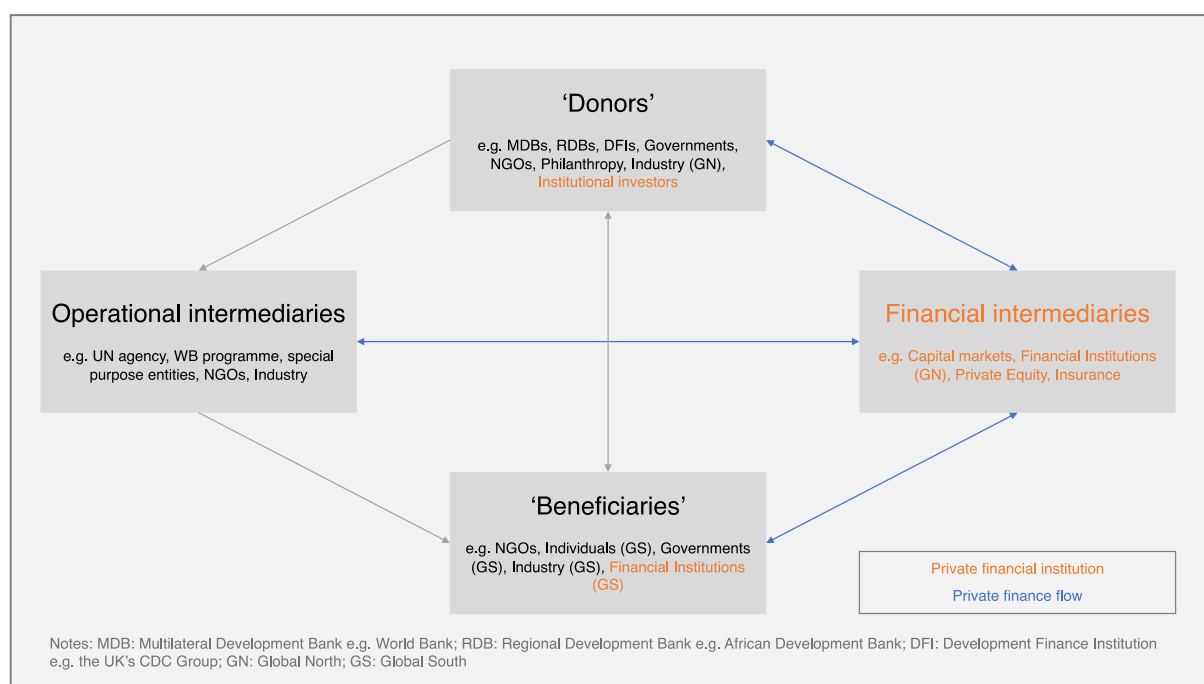
IDF initiatives are made up of a bundle of financial instruments, organised into a wide range of financial mechanisms to fulfil the three core development claims. This is presented above in the deconstruction of the case studies into their constituent financial instruments. For example, IFFIm bundles a series of vaccine bonds together with grant agreements, derivatives, financial securities, and cash payments into a financial model which claims to leverage private finance to 'frontload' funding for immunisation (see Table 6). Similarly, CCRIF and TCX are bundles of financial instruments (see Table 7 and Table 8). The range of financial instruments can generally be categorised into equity, debt, and risk management, although there are a few other possible instruments. For example, equity instruments include private equity and venture capital, which may be part of blended finance schemes. Debt instruments could be bonds, for example vaccine bonds, or loans, for example local currency loans or blended finance packages. Examples of risk management instruments include guarantees, such as political risk or partial credit guarantees, insurance products, or derivatives, for example weather derivatives. These financial instruments can serve a wide range of financial functions within an IDF mechanism, for example to generate equity, increase liquidity, transfer credit risk, or improve credit ratings. The financial instruments which constitute an IDF initiative are an important dimension of the initiative's financial model because the instrument has implications for the mechanism's expected financial returns, distribution of risk, and the actors involved.

IDF initiatives incorporate the logics of finance, as distinguished from much of the broader discussion in development which focused on funding in the MDG era. Funding and financing are different (see also Erikson, 2015). The logic of funding centres on a transfer of funds from one entity to another. *Funding* for development logics might include many ODA payments which are transfers from one country to another, or grants which transfer funds from one organisation to another. In contrast, the logic of finance is a financial transfer with the

expectation of a financial return. There is a more circular logic. These *financing* for development logics might include investors purchasing vaccine bonds expecting to receive interest and principal repayments which deliver a financial return, or reinsurers selling reinsurance with the expectation of payouts being below premiums to make a profit, or investors purchasing local currency risk with the hope the yield exceeds the yield on their reference currency to achieve a financial return. Similarly, in the case of the PEF, Erikson (2019) identifies a shift from bilateral and donor funding to Wall Street financing for pandemic response. The logic of finance links back to the final claim of IDF identified earlier, to deliver private profit, and more broadly changing logics as part of the financialisation of development (see Chapter 2). This is important as financial logics have political effects (see for example Mitchell and Sparke, 2016; Bryan and Rafferty, 2014; Peck and Whiteside, 2016; Bigger and Millington, 2020).

In line with the financial approach, instruments, and logics, IDF is also enrolling private financial actors more actively in development finance, and, in doing so, reconfiguring the development finance landscape. Existing work connected to the financialisation of development has examined the changing role of a range of financial institutions, such as the World Bank (Bigger and Webber, 2021), commercial investors and banks (Baker, 2015), private equity (Bracking, 2012), pension funds and insurers (Johnson, 2013), as well as players like fintech companies (Gabor and Brooks, 2017), or microfinance institutions (Soederberg, 2013), and philanthropic foundations (Mitchell and Sparke, 2016; Kumar and Brooks, 2021). In IDF, most significantly, the role of financial intermediaries has expanded and shifted to be at the centre of financial flows (on the rise of capital market intermediaries, see Folkman et al., 2007). Intermediaries may be, for example, capital markets, financial institutions (from the Global North), or insurance players. Furthermore, actors such as institutional investors take on a re-configured 'donor' role contributing resources, joining more traditional public providers of development finance such as development banks and governments. Financial institutions (from the Global South) can be in the re-configured role of 'beneficiary', for example under various access to finance initiatives. Figure 18 presents a simple conceptual map of this development finance landscape, highlighting the central role of private financial actors in development finance.

Figure 18. Simplified development finance landscape



As a financial solution, IDF is closely related to the financialisation of development. IDF is both influenced by the financialisation of development and a driver of the financialisation of development. Financialisation is evident in IDF in several ways. First, IDF's core development claims are financial. Second, IDF takes a financial approach to development challenges. Third, IDF mechanisms are arrangements of financial instruments. Fourth, IDF initiatives are managed through financial logics. Finally, IDF initiatives enrol financial actors. In these ways, the emergence of IDF since the early 2000s was part of, or even at the forefront of, the financialisation of development. More recently, in line with the suggestion that some IDF approaches, logics, and mechanisms have been incorporated into broader post-2015 development finance agendas, IDF may be further deepening the financialisation of development. Reflecting on innovative development finance as a financial solution suggests that perhaps 'development' can be thought of as the adjective describing or modifying the noun 'finance'. 'Development' qualifies the type of finance, akin to green finance, corporate finance, or public finance.

5.6.4 Conclusion: Innovative development finance is a financial solution to a development challenge

In conclusion, this section's analysis argues that, conceptually innovative development finance is a *financial solution* to a development challenge. IDF can be thought of as development *finance*, where development is a qualifier to the core element of IDF, finance, and the unconvincing 'innovative' label is dropped. IDF initiatives tackle genuine development challenges, through a financial approach, making three core development claims: to leverage private finance, manage risk, and create markets. IDF initiatives bundle market standard financial instruments into schemes which aim to fulfil the development claims. At their heart, IDF initiatives represent the financial transformation of development thinking, practices, and institutions. In adopting a financial solution to development challenges, where the mechanism is constituted of a bundle of financial instruments, IDF initiatives represent financialised development. For example, as introduced in Chapter 4, IFFIm is a case of the financialisation of global health, CCRIF of the financialisation of disaster risk management, and TCX the financialisation of international lending. IDF is, therefore, situated as part of the financialisation of development more broadly.

5.7 Analytical framework: Innovative development finance landscape

Based on my analysis, this section presents an analytical framework of the innovative development finance landscape (Figure 19). The framework's two key dimensions are: the three core development claims which characterise IDF – leverage private finance, manage risk, and create markets; and the financial instruments which constitute IDF – equity instruments, debt instruments, and risk management instruments. Together, the development claim and financial instrument contribute to describing the financial models which make up the IDF landscape. These two dimensions are critical characteristics of an initiative – the claim influences the developmental outcome and the financial instrument influences the structure of financial flows, risk distribution, and actors involved. It is worth noting that, as with any framework, it is necessarily simplifying. The actual landscape of IDF initiatives is diverse, complex, and messy, and some initiatives may not fit neatly in the framework. However, as a heuristic, the framework is helpful to describe the landscape of IDF initiatives, capturing two key dimensions of an initiative's financial model. In particular, as IDF is conceptualised as a financial solution to a development challenge, the financial model is an important lens for examining IDF and the research questions on IDF's implications for development agendas and its economic and political consequences because, as noted, the financial model influences development outcomes, financial returns, risk distribution, and the actors involved.

Figure 19. Analytical framework of innovative development finance landscape

Development claim									
Financial instrument	Leverage private finance				Manage risk		Create markets		
	Blended finance Humanitarian impact bond	Investment in financial institution in Global South	Blended finance	First loss equity investment	Blended finance	First loss equity investment	DFI investment in industry in Global South	Investment in bottom of the pyramid schemes	
Equity	Loans	Blended finance	Securitising remittances	Local currency loans	First loss loan	Lending to targeted industry in Global South	Lending to bottom of the pyramid schemes	Green banks	
		Securitising MDB portfolio	Debt conversions						
Debt	Bonds	Social bonds	Diaspora bonds	Catastrophe bonds	Creating indexes	Local currency bonds	Creating capital markets		
		Green bonds							
Risk management	Guarantees	Risk guarantee	Credit risk guarantee	Risk guarantee	Credit risk guarantee	Advanced market commitments	Guarantees for targeted industry in Global South		
		Political risk guarantee		Political risk guarantee					
Insurance	Insurance	Credit mobilisation	Insurance for development	Risk pools	Insurance for development	Weather insurance	Catastrophe insurance		
				Catastrophe insurance	Crop or drought insurance				
Derivatives	Derivatives	Currency swaps	Commodity derivatives	Weather derivatives	Currency swaps	Local currency derivative markets	Risk management funds		
				Catastrophe swaps					
Note: Illustrative set of financing models (non-exhaustive)									
Example financing model									

In the framework, the intersections of the financial instrument and development claim (the intersections of the matrix in Figure 19), can be considered to describe a family of financial models. For example, one family might be various types of bonds to leverage private finance, such as social bonds and green bonds (see for example Dowling, 2017; Bigger and Millington, 2020). Bonds to manage risk might be another family, such as catastrophe bonds and pandemic bonds (see for example Johnson, 2014; Erikson, 2019). Another might be guarantees to manage risk, which could include political risk guarantees or credit risk guarantees. For a family of financial models, sharing a financial instrument, such as a bond or guarantee, by definition means the financial models will also share some financial characteristics. Similarly, if the development claim is the same, then the financial models will also share some development characteristics. For example, in terms of the effects of social and green bonds, Dowling (2017) and Bigger and Millington (2020) have shared concerns over inequality and who faces the burden of risk. Of course, within a financial instrument, there may be a wide range of different financial models. Nevertheless, families of financial models share some important financial and development characteristics. For example, currency swaps are not identical to weather derivatives, and securitising remittances is not the same as securitising a MDB portfolio, however, in both cases, the financial models share some important characteristics. The framework is, therefore, used in Chapter 4 for case study selection within the IDF landscape.

5.8 Conclusion

IDF emerged in the early 2000s in the context of the MDGs, officially becoming part of the financing for development discourse in the Monterrey Consensus in 2002. IDF was framed as a solution to the projected shortfall in financial resources to achieve the MDGs, specifically ODA targets. By the mid 2000s, IDF had gained considerable political momentum and a number of initiatives were launched. By the late 2000s, IDF had become an established element of financing for development agendas, and part of the private sector turn in development. Within a decade of the Monterrey Consensus, the number and variety of IDF initiatives had proliferated. In the post-2015 era, in the context of a broader turn to private finance, IDF has become a core part of financing for development agendas, captured officially in the Addis Agenda and in the influential ‘from billions to trillions’ note. The key narrative justifying IDF remains a financing gap to achieve the SDGs. This narrative and other characteristics of IDF have been absorbed into the overall discourse of post-2015 development finance.

Conceptually, IDF is a financial solution to a development challenge – a financial solution made up of a bundle of market standard financial instruments. Analysing IDF initiatives reveals that neither the financial instruments nor the financial logics are innovative in the sense of being novel or original. Instead, from the perspective of financial markets, they are ordinary and market standard. IDF initiatives aim to tackle genuine development challenges, which are translated into three core (financialised) development claims: to leverage private finance, manage risk, and create markets. IDF initiatives make a further claim to deliver profit. These claims are fulfilled by a range of financial models, made up of a bundle of financial instruments. As a financial solution, IDF represents part of the financialisation of development. Based on this analysis, an analytical framework of the IDF landscape can be constructed which brings together two key dimensions of the financial models of IDF, the development claim and financial instrument. The next chapter, drawing on this framework and the follow the money approach from Chapter 3, analyses the financials and development claims of IDF.

Chapter 6. The financials and claims of innovative development finance

6.1 *Introduction*

This chapter scrutinises the financials of innovative development finance, focusing on examining the three core development claims identified in Chapter 5: leveraging private finance, managing risk, and creating markets. Following the money through the case studies reveals that, although private financial resources are integral to each case's financial model, these initiatives do not mobilise *additional* private financial resources for development in the long run. Instead, the initiatives are fundamentally funded by public finance, and significant resources are peeled off and redistributed to private actors as money flows through the initiatives. Second, the analysis shows that these initiatives manage risk in a limited rather than comprehensive way, oriented towards managing risk for financial market actors, and that additional financial risks enter the financial system. Third, projects support some market creation, better understood as market expansion for existing financial actors. These markets are spatially uneven, concentrated in existing financial centres in the Global North. This also means material rewards are distributed spatially unevenly. A final, important benefit is hiding in plain sight in all three cases: the significant opportunity for private profit. Consistently, the initiatives deliver on the second part of the 'win-win' narrative. Resources are distributed through a range of financial mechanisms, including as interest on debt, fees, insurance premiums, dividends, and speculative returns. Additionally, follow the money reveals not only that the scale of profit is significant, but also that non-trivial rewards are distributed to financial intermediaries, not only to investors. These meaningful findings are the opposite of the cost effectiveness statements which all three case studies make.

Thus, following the money reveals important generalisable characteristics of IDF, which contrast to the claims made, and capture some of the consequences of the financialisation of development. First, no aid additionality and a fundamental reliance on public finance. Second, limited risk management, oriented towards financial actors. Third, a spatially uneven distribution of market expansion and material rewards. Fourth, significant opportunities for private profit and an expensive financial model.

In exploring these issues, the chapter demonstrates the value of adopting a follow the money approach. It shows the detailed evidence that can be revealed, and the insights this brings to

debates around the financialisation of development. Specifically, it uncovers precisely who benefits and by how much, as money flows through the case studies and material resources are peeled off by different actors. It also sheds light on the financial instruments, actors, risks, and markets which come to constitute development projects. In this way, the methodology informs us about the mechanisms of financialisation and the (geo)economic consequences of the financialisation of development.

This chapter is structured into sections critically examining each of IDF's three development claims and then the claim to deliver private profit. For each claim, findings are presented from following the money through each case study in turn⁴⁹. While each case addresses all three development claims, in line with my research design each case places a different emphasis on the three claims and so the analysis of the cases will carry a different weight in assessing the three development claims in the conclusion. IFFIm's fundamental objective is to leverage private finance for immunisation so more weight is placed on this case in assessing that claim, while CCRIF is centred on managing disaster risk, and TCX focuses on creating local currency markets. The chapter's conclusion presents the characteristics of IDF revealed through following the money, conceptually framed as the (geo)economic consequences of the financialisation of development.

6.2 Follow the money: Leveraging private finance

This section analyses IDF's claim to leverage private finance, following the money to understand whether and how much the initiatives 'mobilise' or 'catalyse' private financial resources, and whether there is aid additionality, meaning additional financial resources are used for development purposes on top of the aid or public finance resources committed.

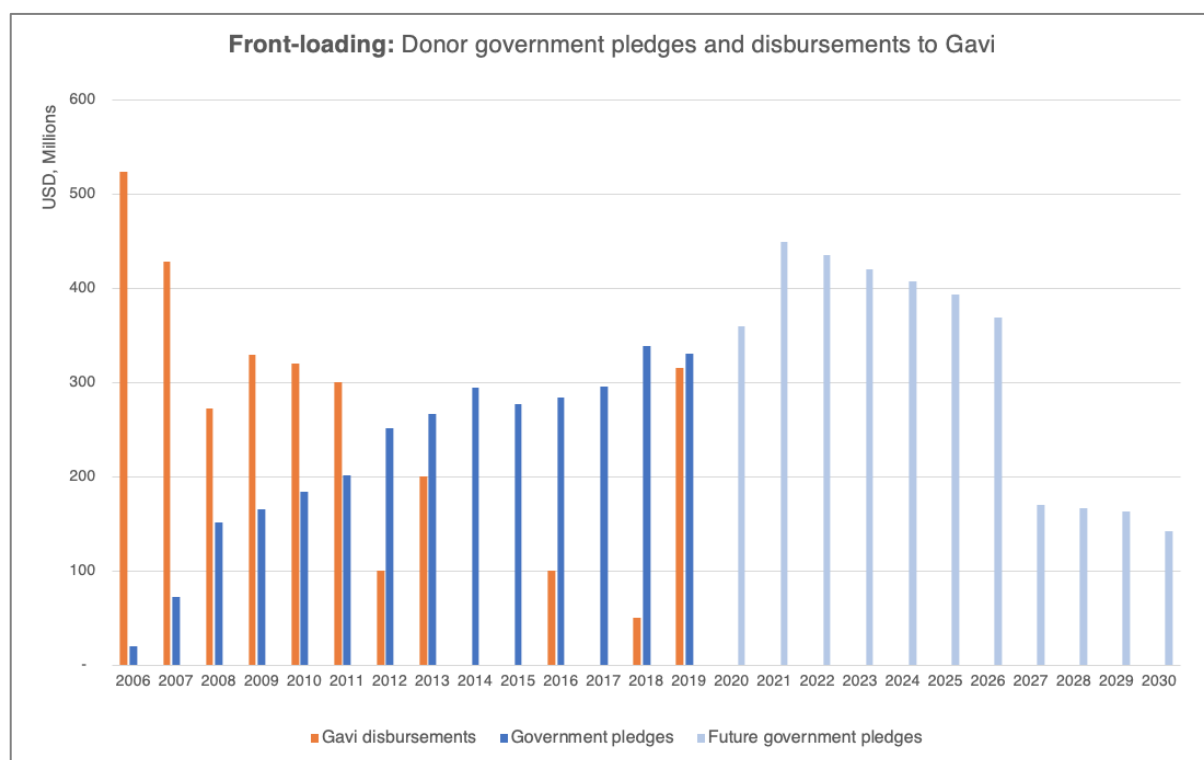
6.2.1 IFFIm

IFFIm's fundamental objective is to leverage private finance for immunisation, specifically through frontloading long-term donor commitments to make funding available to Gavi earlier than it would otherwise be under more traditional rounds of donor pledging. This has a health benefit because, in IFFIm's words, "there is zero value vaccinating a child in 10 years if he or

⁴⁹ Some of the results on IFFIm presented in these sections, specifically on leveraging private finance and the opportunity for private profit, are also the subject of a published paper in *Economic Geography* entitled "Innovative development finance? Vaccine bonds and the hidden costs of financialisation".

she dies from a vaccine-preventable disease this year” (IFFIm, 2019a). Following the money confirms IFFIm’s significant frontloading effect, especially in its early years when Gavi receipts from IFFIm far exceeded government grants (see Figure 20). Funded largely through a \$1 billion inaugural bond issue in 2006, followed by ten notes issued in 2009 with proceeds of \$1.1 billion and six notes issued in 2010 which raised \$0.9 billion, IFFIm disbursed significant sums totalling \$2.2 billion to Gavi over the 2006 to 2011 period. In line with frontloading, this significantly exceeds the donor government payments of \$0.8 billion received by 2011. However, beyond these early years, IFFIm’s disbursements to Gavi have been both significantly smaller and less frequent, totalling less than \$0.5 billion between 2012 and 2018; such that, by 2018, total payments from donor governments stood at \$2.8 billion, exceeding total disbursements to Gavi of \$2.6 billion. A disbursement to Gavi of \$0.3 billion in 2019 could have been a sign of this trend reversing, although receipts from donors still exceed disbursements to Gavi, and it is hard to draw a clear conclusion on this point given the subsequent impact of the COVID-19 pandemic.

Figure 20. IFFIm's frontloading effect

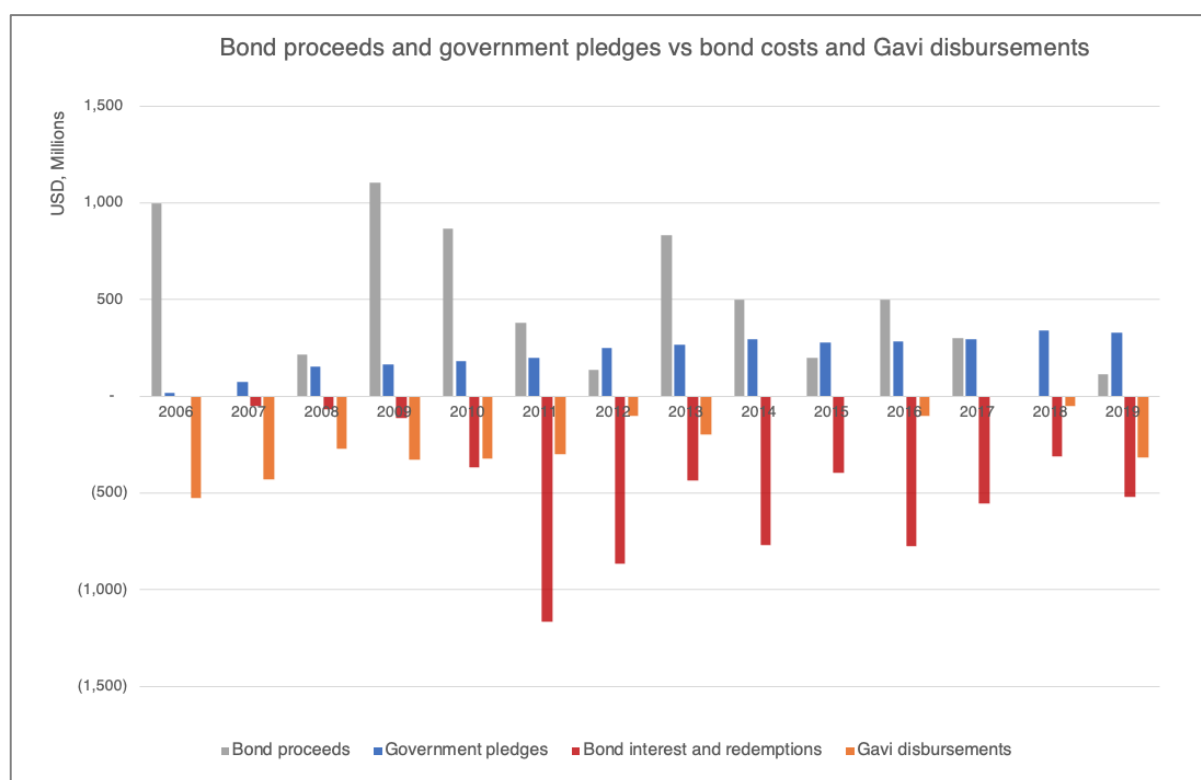


This winding-down of disbursements to Gavi over the decade following its launch might be expected if IFFIm’s operations were wrapping-up having delivered its ‘frontloading’ mandate,

but that is not the case. Between 2012 and 2019, IFFIm signed five new grant agreements with donors. IFFIm has also been active in capital markets, issuing 13 bonds between 2012 and 2019. This points to the more complex financial logic, and the debt-fuelled nature of IFFIm's financing model: IFFIm *must* issue new bonds in order to make interest payments on and redeem old bonds. There is not a simple 'frontloading' model operating as the narrative suggests with a one-to-one relationship between the government pledges backing bonds and the payments IFFIm makes to bondholders – IFFIm is dependent on borrowing from capital markets through bonds with much shorter maturities than the long-term government pledges backing those bonds (similar to Peck and Whiteside's, 2016, 'debt machine'). Figure 21 begins to illustrate this complex financial logic and credit dependent model by comparing IFFIm's income from bond proceeds and donor governments (as positive values) to expenses on interest and bond redemptions and grants to Gavi (as negative values). This strikingly captures the fact that capital market transactions (in grey and red) dwarf the size of the government grants which have been 'frontloaded', and the continuing necessity of issuing new bonds after disbursements to Gavi have tailed off. Behind the scenes, on top of the flows of money outlined above, IFFIm maintains a substantial volume of liquid assets managed as funds in trust by the World Bank, which averaged \$775 million in end of year values between 2006 and 2019. Through this investment portfolio, IFFIm engages with financial markets through transactions in money market instruments, government and agency obligations, and corporate and asset backed securities. IFFIm derives a reasonable income on its portfolio of on average \$9.5 million per annum between 2006 and 2019⁵⁰. What I have shown here is the debt-driven financial logic of IFFIm's financial model, its dependence on short-term global finance, and the significant size of capital market transactions it involves. All of these speak to both deepening financial markets in the name of development, and financialisation seen in the increased influence of capital markets and increased social reach of financial intermediaries into the world of vaccines in poor countries.

⁵⁰ In my analysis I do not offset the income from the investment portfolio against IFFIm's borrowing or other costs as I consider that the flows of money derived from the investment portfolio do not constitute a fundamental pillar of IFFIm's frontloading financial model, but rather a cash flow management decision.

Figure 21. IFFIm's main flows of money



So, what does this mean for IFFIm's claim to leverage or mobilise private sector finance? Whilst it is clear that IFFIm raises significant funds from private sources through capital markets – \$6.6 billion in bonds issued between 2006 and 2019 – and, *temporarily* these borrowed funds go to Gavi, there is no aid additionality in IFFIm's financing model. Fundamentally, publicly financed donor government grants are the ultimate source of funding for Gavi, and the other part of these grants is channelled to the private sector in the form of costs of borrowing from capital markets and fees – the opposite of the catalysing narrative. Up to 2019, of the \$3.1 billion in donor government payments to IFFIm – that is, taxpayer money which is claimed to act in support of humanitarian and development outcomes – the equivalent of 30% has been channelled to these financial actors: \$879 million in interest to investors and \$55 million in fees to financial institutions and professional services. In practice, the reality looks more like money being peeled off by private financial actors as it flows through IFFIm's model. All of this limits benefits to Gavi, and ultimately, to those children in low-income countries who do not receive the full vaccine schedule in a timely and safe manner.

In summary, examining IFFIm's claim to leverage private finance reveals a mixed picture. IFFIm's frontloading effect has been substantial, with immediate benefits to any children that Gavi would not otherwise have been able to vaccinate. However, this frontloading effect

diminishes in scale beyond IFFIm's early years. In contrast, IFFIm fails to clearly achieve its claim to leverage private finance. Following the money reveals the opposite: a financial model with no aid additionality, which is fundamentally funded by public finance and expensive. The next sections turn to examining how CCRIF and TCX leverage private finance.

6.2.2 CCRIF

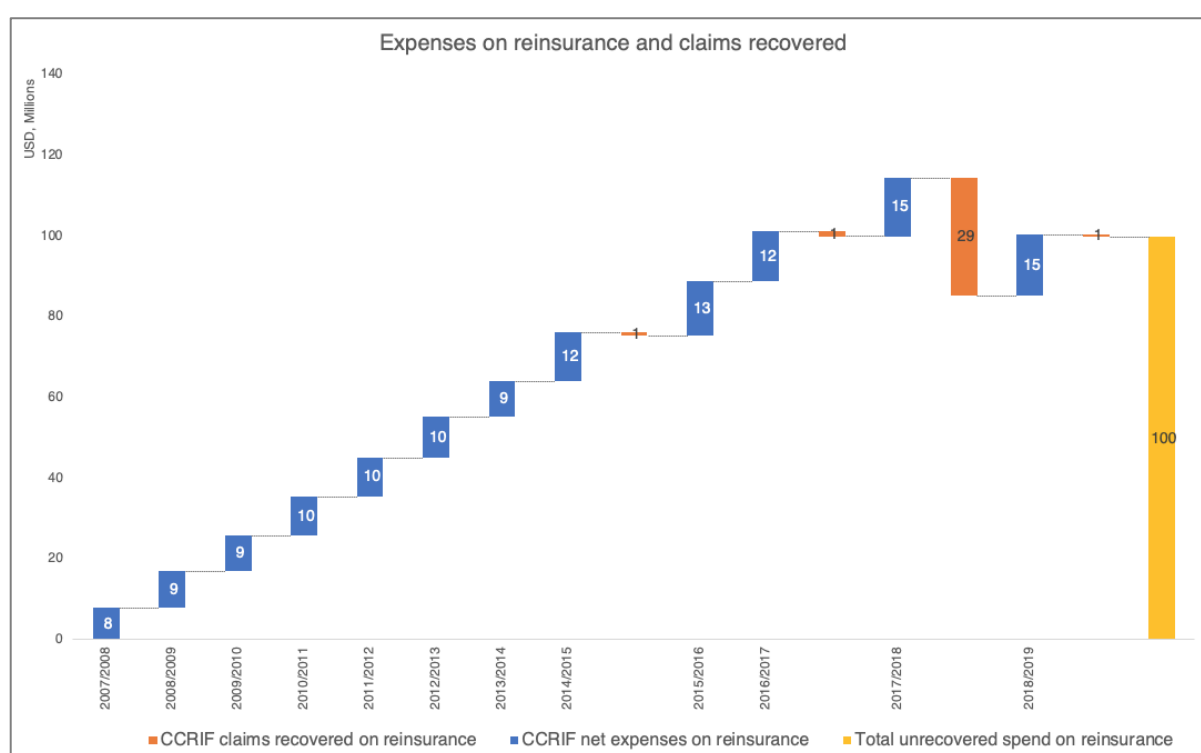
CCRIF leverages private finance to transfer risk to financial markets through the mechanisms of reinsurance contracts, catastrophe swaps, and catastrophe bonds. While CCRIF transfers a significant volume of risk to reinsurance and capital markets, it receives few payouts from this programme, raising questions over the claim to *leverage* private finance. CCRIF's risk transfer programme is divided into portfolios for different risks⁵¹, each structured in layers. CCRIF retains the first layer of risk which has ranged from \$10 million to \$30 million between 2007/2008 and 2018/2019. Above this, CCRIF transfers the next layers of risk by purchasing reinsurance contracts from private reinsurers (between one and three layers depending on the portfolio). Additionally, for its earthquake and tropical cyclone portfolio, CCRIF transfers risk to capital markets. CCRIF entered into catastrophe swap transactions through the World Bank to transfer risk (some of layer three) to the private sector for an amount of between \$15 million and \$30 million between the 2007/2008 and 2013/2014 seasons. From the 2014/2015 season, CCRIF issued a three-year \$30 million catastrophe bond through the World Bank to transfer risk (some of layers two and three) to the private sector. Through these three mechanisms, CCRIF has purchased between \$107.5 million and \$209 million annually in external risk capital depending on the season, which adds up to a total of \$1.5 billion over the period of study. The risk transfer programme outlined here involves significant transactions at market rates in financial markets. Is this private finance leveraged, and are additional resources mobilised for development?

Over the 2007/2008 to 2018/2019 period, CCRIF spent \$132.0 million in premiums on reinsurance contracts but received extremely few payouts (see Figure 22). Payouts have been both infrequent and small, with one exception. In fact, until the 2014/2015 season, CCRIF had never claimed on its reinsurance. Despite making 38 payouts to member governments across nine of twelve seasons, CCRIF has been able to make a claim on its reinsurance in only four seasons, and those claims have only exceeded \$1.2 million in one of those seasons. In 2017/2018, CCRIF recovered \$29.3 million, which accounts for the vast majority of total

⁵¹ The segregated portfolios are earthquake and tropical cyclone, excess rainfall, Central America earthquake and tropical cyclone, and Central America excess rainfall.

payouts from reinsurance of just \$32.1 million (see Figure 22). This represents just 23% of the \$139.5 million CCRIF has paid out to member governments. Given that CCRIF spent \$132.0 million on reinsurance contracts for aggregate coverage of \$1.5 billion and recovered only \$32.1 million, it can be concluded that leveraging reinsurance markets has not mobilised or catalysed additional funding for post-disaster recovery. Instead, resources have flowed to reinsurers. The story is similar but starker for CCRIF's catastrophe swaps and bonds. At no point during the period of study has CCRIF called on this external risk capital, and so at no point has CCRIF been able to leverage these capital markets.

Figure 22. CCRIF's expenses on reinsurance and payouts from claims covered

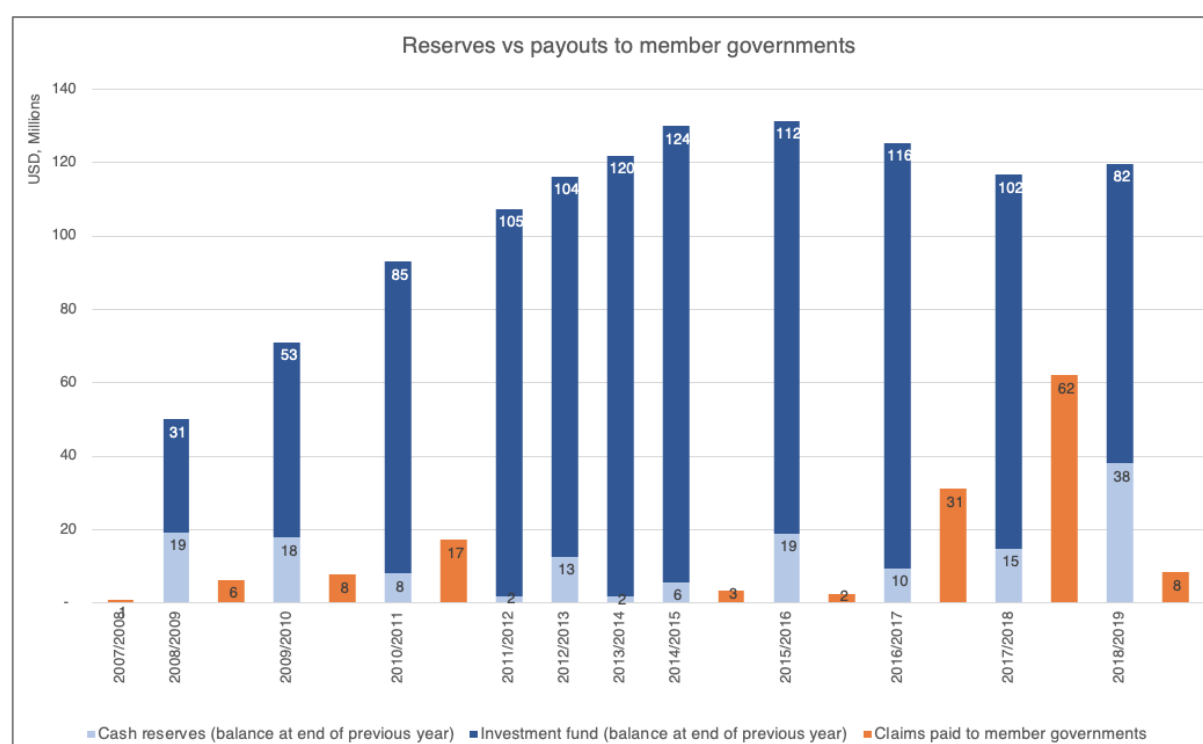


So, although reinsurance and insurance linked securities are an integral element of CCRIF's financialised design, the external risk capital is not materially leveraged, either in terms of delivering substantive payouts to CCRIF or in terms of mobilising additional resources. If CCRIF is not recovering a significant proportion of the payouts it makes to member governments after disasters, then what is the source of funds? Following the money reveals that the CCRIF model is fundamentally funded by public finance. CCRIF is funded by its member governments' premiums and participation fee deposits, together with donor funds from a range of governments, including via a World Bank multi-donor trust fund and IDA

grants. As with the case of IFFIm, the financialisation of development, here the expansion of reinsurance and capital markets into post-disaster relief funding, relies on public state funding.

Going further, the question of whether the external risk transfer programme is a necessary element of CCRIF's financial model might be raised. The reason to transfer risk is to support CCRIF's claims paying capacity. So, if CCRIF can pay claims without transferring risk, the conclusion may be drawn that the programme isn't strictly necessary. This is exactly the finding which emerges from following money. In every year, CCRIF has ample cash reserves to cover payouts to member governments (demonstrated in Figure 23). These reserves are in the form of cash and a substantial investment fund (like IFFIm). CCRIF's investment fund averaged \$96.4 million in end of year values between 2007/2008 and 2018/2019, a substantial sum compared to its operations. For comparison, annual income from member governments for insurance averaged \$24.9 million. Through its investments, CCRIF engages with financial markets in mutual funds, exchange-traded funds, exchange-traded options, equity investments, corporate debt securities, sovereign debt securities, and other short-term investments. Of note, in the one season (2017/2018) that CCRIF recovered a significant amount on its reinsurance policies (\$29.3 million), after covering claims from member governments in full (\$62.0 million) it still had reserves in cash alone of \$38.1 million left over at the end of the year (plus \$81.5 million in investment funds), and this despite having spent significant sums on reinsurance premiums. In other words, CCRIF could have paid its members in full without receiving the reinsurance payment (cash reserves left over exceed the reinsurance receipts). On top of this, the catastrophe swaps and bond have never been triggered. If transferring risk to financial markets isn't necessary, then risk pooling across member governments in a joint reserve mechanism could be sufficient. Expenses on the three financial instruments – reinsurance contracts, catastrophe swaps, and catastrophe bonds – limits the reserves available to member governments for risk pooling, and could instead be used to build up reserves to support members' claims or reduce their premiums.

Figure 23. CCRIF's cash reserves and investment fund vs payouts to member governments



The picture which emerges of CCRIF is strikingly similar to IFFIm. Following the money confirms that CCRIF is operating a significant risk transfer programme to reinsurance and capital markets. However, this financial model does not mobilise *additional* resources in support of development. Instead, CCRIF is fundamentally funded by public finance. Furthermore, following the money calls into question the necessity of the costly external risk transfer to financial markets as CCRIF has enough reserves to operate as a simpler reserve mechanism to pool risks across member governments.

6.2.3 TCX

Although leveraging private finance is not TCX's focus, it still uses the language of 'catalysing' and 'unlocking' private finance as part of its financial model. For example, in TCX's 'Theory of change', a key channel for impact is boosting investment through its derivative currency risk products which "reduces investment risk in and *unlocks* financing" (2018: 8; emphasis added). In a recent annual report, TCX's supervisory board asserts that "ultimately, the role of Development Finance is to *crowd in* the private sector" (TCX Annual Report 2018: 5; emphasis added). TCX aligns with narratives of leveraging private finance by transacting in capital markets for its hedging, trading, and liquidity portfolios. The hedging portfolio includes

transactions with commercial investors to reduce TCX's exposure to certain local currency risks. To achieve this, TCX uses two financial instruments: cross currency swaps and local currency bonds. Notably, this activity "catalyses the private sector" (TCX Annual Report 2019: 5). TCX's trading portfolio consists of derivative transactions with investment banks for the purpose of balancing the diversification of its primary portfolio of local currency exposures. Finally, TCX's liquidity portfolio contains USD money market instruments held with high-grade market counterparties for the purpose of managing its assets and cashflow. As with IFFIm and CCRIF's investment funds, this portfolio of debt instruments amounts to a significant value of assets for TCX. The end of year values averaged \$281.7 million over the 2007 to 2019 period, reaching \$559.4 million in 2019. TCX's financial model actively transacts with capital markets for its hedging, trading and liquidity purposes. However, these three activities do not directly support local currency lending through de-risking development finance, and are not designed to raise additional financial resources for development.

TCX's primary portfolio aims to support local currency lending. This portfolio consists of derivative transactions with TCX's shareholders, mostly publicly backed development finance institutions. These derivative transactions do not require the participation of private market counterparties beyond the end borrower, which is the target beneficiary. In contrast to market standard derivative transactions, which operate on a matched book principle matching supply and demand, TCX holds the currency risks on its balance sheet, foregoing the need for another counterparty to its shareholders' transactions. Put simply, as no private actors participate in the local currency lending TCX promotes, no additional private resources are leveraged for development through TCX's core activities. Instead, public resources from its shareholders and donor governments provide the funding for the actual lending in local currency, the derivatives in TCX's primary portfolio, as well as TCX's other activities, which include the hedging, trading, and liquidity portfolios discussed above.

6.2.4 Summary: Leveraging private finance

In all three cases, there is a remarkably similar story when it comes to IDF's claim to leverage private finance. IFFIm, CCRIF, and TCX's models all involve private finance at their centre and in a significant volume. However, the financial models do not 'leverage' those private resources in support of development in the sense of mobilising additional private finance over the long-term for immunisation, disaster funding, or local currency lending. There is no aid additionality. Instead, in all cases, the financial models are fundamentally funded by public finance. This is similar to the upside-down leveraging effect found in PPPs, where a small

amount of private finance mobilises a large amount of public finance (Bayliss, Romero and Van Waeyenberge, 2021). I return to examining exactly who is benefitting, and by how much, in the later section on private profit. For now, the next section analyses the claim to manage risk.

6.3 *Follow the money: Managing risk*

This section analyses IDF's claim to manage risk through a follow the money approach, examining which risks are targeted, how those risks are managed in terms of specific measures taken, to what extent those risks are limited or contained, and who faces those risks.

6.3.1 CCRIF

CCRIF's fundamental objective is to manage disaster risk, specifically financial vulnerability after a disaster. Mitigating the risk of short-term cash flow problems for governments after catastrophic disasters can be broken down into three components: (1) *rapidly* providing liquidity after disasters, (2) removing the *uncertainty* of securing that funding, and (3) providing sufficient cash at a *scale* to fill the 'gap' between immediate response and long-term redevelopment. In parallel to its core activities, CCRIF manages financial risks for its own account, with benefits and costs distributed unevenly across private and public actors. In this section, I examine each of these components of managing risk in turn.

CCRIF succeeds at making immediate, fast payouts to governments after disasters. Since CCRIF's second season, 2008/2009, its policy terms direct payments to be made within just 14 days of a disaster (down from the first season's timeline of just one month). For example, the day after a catastrophic earthquake struck Haiti on 12 January 2010 at 16:53 local time, CCRIF already announced at 11:00 local time that it was preparing to make a payout of just under \$8 million to the government (CCRIF, 2010). The Haitian government received funds within 14 days. This was faster than the World Bank, IMF, and US government (Roodman, 2010). Rapid cash is essential for governments to secure vital provisions such as food, shelter, and medication; clear debris; and repair damaged buildings and roads.

CCRIF makes payments quickly, in part, because it provides parametric insurance policies⁵² and modelled loss policies rather than traditional indemnity policies. However, this has important implications for CCRIF's ability to manage risk. In brief, parametric policies cover the probability of an event. The policies payout if a triggering event occurs, irrespective of actual loss, and the payout amount is based on event parameters, again not actual loss. In 2010, CCRIF refined its approach from pure parametric coverage to modelled loss. Payouts are calculated by a model of government losses, determined by a parameter of the hazard, such as wind speed on the ground, as a proxy for the loss, rather than actual losses from damage. This has an important advantage: CCRIF can quickly calculate estimated losses and make rapid payments to governments based on measured meteorological data. There is no need for an assessment of damage post-disaster, often a lengthy and complex process. However, there is a disadvantage. Parametric insurance exposes member governments to non-negligible basis risk⁵³ (on the calculations going wrong, see Johnson, 2021b). Basis risk is the risk that the triggering event parameters (for example, earthquake magnitude or wind speed) do not perfectly correlate with the underlying risk exposure (damage from the disaster). For CCRIF, a disaster may cause damage, but the policy is not triggered if measured parameters and modelled losses are below the threshold, leaving governments suffering actual losses but receiving no payout or one that is relatively small compared to the damage sustained. Parametric policies and the nature and design of the parametric contracts available in reinsurance markets, therefore, constrain CCRIF's ability to manage risk.

So, while CCRIF makes fast payments, there are still (at least) six sources of uncertainty which governments face in securing post-disaster financing, related to modelling and contractual terms. First, in some ways most simply, modelled government losses may not reflect actual losses because it is complex and difficult to model damage from earthquake, tropical cyclone, and flooding events (see also Johnson, 2021b). Second, damage can be caused by a meteorological phenomenon of the disaster, but not the one measured by the parametric policy's event parameters. Most frequently for CCRIF, this is rain damage caused by a tropical cyclone whose measured wind speeds do not trigger a payout. For example, in the 2012/2013

⁵² Parametric insurance covers the probability of a pre-defined event happening, instead of insuring the actual loss incurred. Parametric policies payout if a triggering event takes place, regardless of actual loss. That triggering event is determined by a pre-defined set of event parameters. For CCRIF, the event might be an earthquake or tropical cyclone, and the parameters would be earthquake magnitude or wind speed measured on the ground. If the parameter threshold is reached, the policies make a pre-agreed payout, again irrespective of actual loss suffered. Unlike indemnity policies, there is no assessment of actual damage on the ground after the disaster. For CCRIF, a payout agreement could be \$15 million if a magnitude 7.0 earthquake occurs in a defined area. For more on this, see an introductory explanation of parametric insurance policies in Swiss Re (2018).

⁵³ See Chapter 7 for more discussion of an infamous example in the field, the failure of the African Risk Capacity's drought insurance in Malawi.

season, tropical cyclones Isaac and Sandy caused damage in Jamaica, Haiti, and the Bahamas. In Haiti, Isaac caused 'significant damage' and Sandy 'even more damage', with estimated economic losses of \$250 million, severely affecting agriculture (World Bank, 2013). While all three countries sustained significant losses, modelled government losses were below the payout threshold, so none received insurance payments, primarily because damage was from rain rather than wind. In the end, in part reflecting this risk and given actual damage suffered, CCRIF gave discretionary grants to all three countries to support post hurricane Sandy recovery efforts (CCRIF, 2013; on these common but rarely acknowledged 'black-boxed' ex gratia payouts, see Johnson, 2021b). Third, the insurance policies may, by design, only cover an event indirectly. For example, CCRIF's excess rainfall cover was designed when member governments requested flood coverage. However, because of modelling constraints and cost effectiveness, namely insufficient historical data to calculate risk and that human intervention can influence actual damage, the policy covers a different, albeit related event (World Bank, 2008). Furthermore, CCRIF's excess rainfall model is designed as a rainfall hedge, not to replicate actual loss, introducing a further element of uncertainty in the connection between actual loss and the insurance payouts.

The next three sources of uncertainty relate to contractual elements. Fourth, the damage may occur outside the defined area in the contract, or in an area not assigned sufficient weight in the loss model to trigger a payout. In the 2008/2009 season, tropical cyclone Gustav did not trigger a payout for the Cayman Islands government as the loss model was heavily weighted towards Grand Cayman where there was little wind compared to Little Cayman and Cayman Brac where winds reached hurricane force. Similarly, in the same season, tropical cyclones Hanna and Ike hit the Bahamas, but modelled losses were below the threshold as the policy was weighted towards Nassau, the capital. Fifth, the policies only cover certain types of losses. For example, in 2017, Jamaica received a small payout compared to losses after floods because the insurance contract wording didn't cover agricultural losses. Sixth, CCRIF's policies take into account only one disaster, not successive events, in triggering a payout. This is particularly relevant for earthquakes, where aftershocks can cause significant damage. For example, in 2010, aftershocks in Haiti caused further losses, however, these were not covered, in part because they were classified as smaller aftershocks of the main event.

To summarise, these six different sources of uncertainty show that CCRIF's model is not comprehensively managing the risk of post-disaster financial vulnerability for its member governments. *If* a policy is triggered by a disaster, governments rapidly receive a payout from CCRIF to fund recovery, within 14 days. However, importantly, there is conditionality in that statement; risk management is limited, and governments still face significant uncertainty in

short-term post-disaster funding. It is worth noting that these six sources of risk are most relevant for more frequent events with relatively low damage. There is more certainty that catastrophically damaging events with severe measured parameters will trigger the policies. To reduce this basis risk, CCRIF introduced a new policy in the 2016/2017 season: aggregate deductible cover. This provides a minimum payment for events where modelled losses do not trigger a payment under the insurance policy, but where there is loss on the ground. This policy resulted in seven payouts over the following three seasons, amounting to over \$600,000 to six countries in the 2017/2018 season alone and one payment in 2018/2019, highlighting member governments' significant exposure to basis risk in previous seasons.

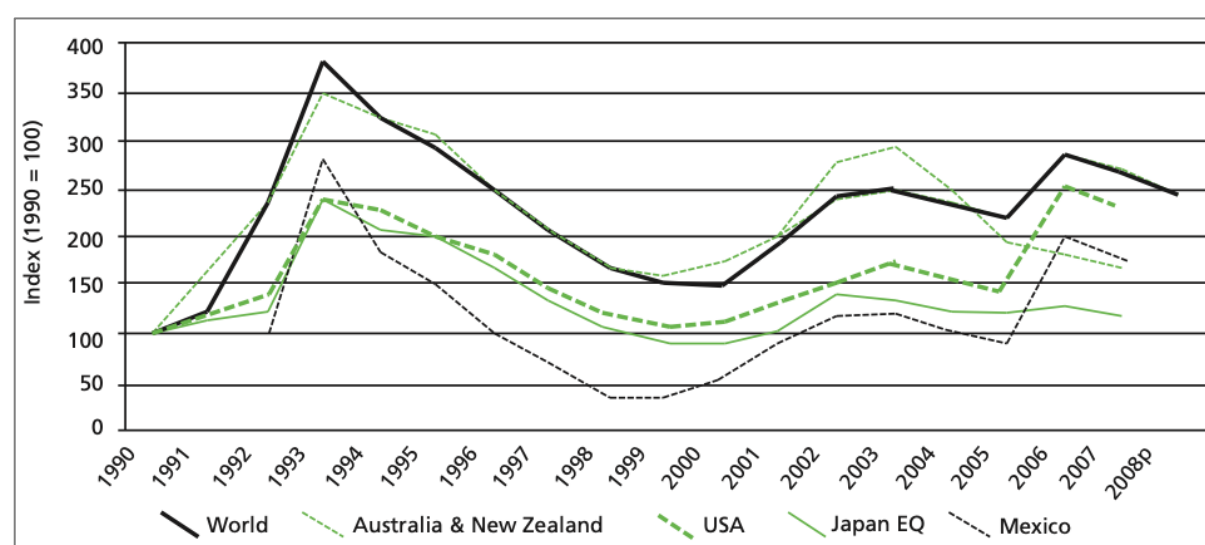
The third component of managing post-disaster funding risk is the scale of payments. Following the money reveals that, although payouts are fast if triggered, they are not at a sufficient scale relative to need. The catastrophic earthquake that struck Haiti in January 2010 was devastating. Over 200,000 people were killed, including one in three civil servants, and 3.5 million more were affected; while 4,200 schools, over 60% of the country's hospitals, and 13 out of 15 ministerial buildings were destroyed (World Bank, 2013). CCRIF made a rapid payout of \$7.8 million under Haiti's insurance policy. However, compared to need, this insurance payout was insignificant. It covered less than 1% of the resulting directly attributable economic losses, which amounted to 120% of Haiti's GDP, and pales in comparison to the IMF's estimate of the government's fiscal gap due to tax revenue collapse of between \$250 million and \$350 million (World Bank, 2013). Although the 2010 earthquake in Haiti is one of the most catastrophic examples, the small scale of CCRIF insurance coverage is not an isolated issue. In August 2015, in Dominica, tropical storm Erika caused substantial and rapid flooding, landslides and damage to infrastructure, killing 30 people with another over 7,000 impacted, out of a population of around 70,000 (CCRIF, 2015). Estimated losses reached \$483 million, or around 90% of GDP (CCRIF Annual Report 2015-2016). Dominica received the maximum payout under its excess rainfall policy: only \$2.4 million.

More generally, there is clear scope to increase coverage limits of member governments' policies. Coverage limits represented 0.3% to 12% of GDP in 2008/2009 (World Bank, 2010b). In the 2009/2010 season, limits ranged from \$1.1 million to \$104.4 million. As the Center for Global Development notes (see Roodman, 2010), "If another 0 or so were appended to the CCRIF financing numbers, it could become a superior alternative to ad hoc debt relief and debt creation at dire moments". The small scale is, in part, an element of CCRIF's design to just target a fraction of direct government losses. Indeed, maximum coverage is capped at 50% of estimated direct losses as this is deemed sufficient for short-term liquidity, although in practice the subscribed policies typically cover only 10% to 15% (World Bank, 2014b). Despite

this small scale relative to need and the remaining risks outlined above, if triggered, payouts from CCRIF nonetheless rapidly provide essential cash to governments.

Further limiting CCRIF's contribution to managing risk are highly volatile catastrophe reinsurance prices (see also Johnson, 2014). The World Bank, in its second season operation review, characterises prices as “known to be highly volatile” (2008: 7). Figure 24 illustrates catastrophe insurance pricing in US financial markets over the two decades before CCRIF's launch, which shows the indexes ranging from around 40 to 375 (from their starting points of 100). For example, the price of some reinsurance layers for catastrophe risk in the Caribbean increased by 100% following the active 2004/2005 hurricane season (World Bank, 2008). While CCRIF's mechanism is able to limit some of the effects of volatile prices for its member governments, they necessarily impact its cash reserves, risk transfer structure, and pricing.

Figure 24. Catastrophe insurance pricing index in US financial markets, 1990-2008 (Source: World Bank, 2008)



CCRIF not only manages disaster risk for its member governments, but also carefully manages financial risks for its own account, which also protects financial market counterparties and its members. CCRIF structures its finances such that it has a “conservative risk management strategy and its probability of insolvency is extremely low” (World Bank, 2008: 27). The key measure is claims paying capacity, determined by the risk transfer structure: in other words, how much risk to retain, and how much to transfer to reinsurance and capital markets. Importantly, CCRIF's reserves support the risk it retains, and these are capitalised by donors and member governments; that is, they are publicly funded. In its first

six seasons, CCRIF had average claims paying capacity for aggregate annual losses with a calculated 1 in around 1200 chance of occurring⁵⁴. Over the next six seasons claims paying capacity for the earthquake and tropical cyclone portfolio averaged approximately 1 in 570 years. CCRIF's excess rainfall and Central American portfolios had calculated averages of around 1 in 1700 years and 1 in 800 years respectively. This was significantly above comparable insurance organisations. In 2007 shortly before CCRIF launched, the California Earthquake Authority (CEA) operated with claims paying capacity for around a 1 in 600 chance (Fitch, 2007), and for a 1 in 430 year earthquake in 2021, in line with its strategy of operating between 1 in 400 and 1 in 550 year return loss period (Fitch, 2021). At the time of CCRIF's first season, the Taiwanese earthquake pool had a survivability of 1 in 240 years and the Turkish earthquake pools of 1 in 150 years (CCRIF Annual Report 2007-2008). CCRIF is also significantly less risky than the standards of the European Union directive on insurance, Solvency II, described as "some of the strictest in the world" and "best practice" by the World Bank (2012: 49), which requires companies to hold capital for a less than 1 in 200 chance of insolvency over the next 12 months. It is not only actuarial risk modelling measures which support an assessment of prudent risk management. CCRIF's operations generate positive net income in all years except 2016/2017, on average above \$10 million. This suggests prudent decisions in practice, as a risk pooling mechanism might be expected to fluctuate more over a 12-year period.

There are consequences to CCRIF's high level of claims paying capacity compared to similar facilities and insurance industry standards. For the World Bank, it is "appropriate given its pioneering nature" (2011: 34). While this 'innovativeness' may, in part, justify prudent risk management, especially in early years, CCRIF may be transferring too much risk to capital markets. The result is significant expenses on reinsurance premiums and catastrophe swaps and bonds. For member governments, the trade-offs for low financial risk are higher premiums, higher participation fees, and/or limiting the reserves CCRIF holds to support the first layer of risk which it retains. In other words, increasing the cost or limiting the effectiveness of risk management. For private financial actors, more external risk transfer means more business and lower counterparty risk. Accordingly, while CCRIF's prudent risk management reduces its risk of insolvency (which supports members), the main costs of the trade-off are borne by member governments to the benefit of market counterparties.

⁵⁴ Claims paying capacity was consistently above 1 in 1000 years with the highest at 1 in 1400 years in both 2008/2009 and 2011/2012.

Managing risk is at the heart of CCRIF. To support its members' financial vulnerability after disasters, CCRIF's financial model can rapidly provide essential liquidity, within 14 days of a disaster striking. However, it does not manage this risk comprehensively. Governments still face considerable uncertainty over whether they will receive a payment, and if they do, the scale has generally been insufficient relative to need. Beyond its development claims, CCRIF manages its financial risks prudently, with benefits mainly accruing to private market counterparties and the costs borne by member governments.

6.3.2 TCX

One of TCX's key aims is to de-risk development finance, though its risk management activities are broader. This section first analyses the mechanisms at the core of TCX's financial model in support of its development claim, namely managing currency and tenor mismatches for development loans. The next part analyses TCX's financial risk management measures for its own account, which protect shareholders and commercial counterparties. This section also examines the role of public finance in protecting TCX's shareholders.

In support of its development claims, TCX manages both currency and maturity mismatches for its DFI shareholders and, ultimately, their end borrowers. It is common practice in development for long-term debt to be denominated in hard currency, even though end borrowers' earnings are typically in their local currency. The result is currency and/or tenor mismatches for borrowers which are exposed to potentially high and adverse currency fluctuations and/or have balance sheets with shorter-term liabilities than their assets or earnings profile. TCX manages currency risk through derivative financial instruments (cross currency swaps and forwards), such that its shareholders lend in hard currency and end borrowers borrow in local currency. Of course, TCX does not actually provide loans in local currency; however, its model has indirectly supported a significant volume of local currency loans, \$7.4 billion since inception up to 2019. In 2008 TCX hedging products were available in 53 currencies, and this had increased to 95 by 2019 which covers 112 countries. TCX published an example of its impact in Kyrgyzstan during the 2014 Russian ruble crisis, a major currency crisis where TCX suffered a cumulative Kyrgyz som (KGS) related loss of \$10.8 million (TCX, 2015). In the example, in 2013, a two-year 500,000 KGS loan would have had a fixed interest rate of 16.7%, while an equivalent 10,406 USD loan would have incurred 5%. Subsequently, the KGS depreciated by 24.8% against the USD, meaning repaying the USD loan would have cost KGS 664,957 – an effective interest rate of 18.3%, well above 5%. The benefit of the local currency loan is the borrower's lower interest rate (16.7%), or rather the

risk of interest actually being significantly more costly on the USD loan. What is noteworthy in this celebrated example, is how close the final USD and KGS interest rates are: only a 1.6% difference. Given the extreme scale of the depreciation and currency crisis, one might expect a KGS loan to perform relatively even better than a USD loan. This highlights why many borrowers opt for hard currency loans – interest rates in US dollars or euros tend to be significantly lower. This difference in interest rates somewhat blunts the benefit of local currency loans in many situations. Moreover, the flip side of protection against depreciation, is not gaining if the local currency appreciates, as borrowers do not benefit from lower repayment costs.

To address tenor mismatch, TCX aims to increase the maturity of available local currency development loans by offering swaps with longer interest rate terms than those available commercially. In particular, it targets micro-, small and medium-sized enterprises in Sub-Saharan Africa. In 2011⁵⁵, a full 42% of TCX's primary portfolio had a maturity of less than two years. In this context, an evaluation by KfW in 2012 concluded that TCX was unlikely to have alleviated long-term credit constraints (KfW, 2012). By 2015 there had been some shift towards medium-term borrowing of three to five years, with short-term maturities of under one year accounting for only 1% and maturities up to three years accounting for 35% of the portfolio. However, there was no marked increase in long-term borrowing. Maturities over five years only accounted for 25% in 2011, 24% in 2015, and 25% in 2019. Despite these aggregate figures, there is evidence that TCX can support significantly longer tenors in some circumstances, as the example of an 18-year swap for a renewable energy project from 2017 demonstrates. As with managing currency mismatches, TCX is not providing any long-term lending itself; however, particularly in its later years, it does support a certain volume of medium and longer-term development funding. What is unclear is whether the shift away from short-term lending is driven by changes in shareholder practices, markets, or TCX fulfilling its mission to be a "leading catalyst for the development of long-term local currency hedging products" (TCX Annual Report 2009: 6). Furthermore, the maturity of TCX's offering is capped at 150% of the longest term available commercially in the market, making TCX's impact contingent on existing markets. The 150% limit is a somewhat limited yield curve extension to materially increase the maturity of lending in a development context, especially in currencies where available tenors are very short, constraining TCX's potential impact on managing risk. In contrast, the cap limits the risk exposure of TCX and its shareholders, a broader point addressed next.

⁵⁵ The earliest year TCX published its portfolio's maturity profile.

TCX adopts many further financial risk management measures, which go beyond its development claims. The first two, a risk diversification strategy and hedging programme, manage the currency and interest rate risks which arise for its shareholders in the two developmental activities discussed above. TCX aims to be a commercially viable model for its shareholders' currency hedging demand, creating a "business plan [that] is robust and profitable on its own account" (TCX Annual Report 2007: 27), and a "solid and creditworthy investment" (TCX Annual Report 2007: 28). For investors, the TCX logic is to pool currency exposures and therefore spread risk to benefit from efficiencies of scale and scope. The key risk mitigation mechanism is therefore a broadly diversified portfolio of currencies and interest rates, created by successfully pooling the origination capacity of TCX's shareholders. In 2008, TCX's primary investment portfolio was spread across 18 DAC currencies with a size of \$309 million (gross notional exposure). By 2015, its portfolio had 50 currencies and had reached \$1.3 billion. After more strong growth, in 2019, the primary portfolio stood at \$3.4 billion with exposures in 56 currencies, and TCX's total local currency exposures reached \$4.2 billion. To enforce its policy, TCX has "stringent diversification requirements" (TCX Annual Report 2007: 28) which set limits on exposures to single currencies or countries and regions to manage concentration. While diversification reduces risk for shareholders, it can also limit TCX's core development activities if demand for lending exists in a currency which would lead TCX to breach its concentration limits. Indeed, this issue arises during the period of study and is resolved through TCX's hedging programme, which hedges part of its local currency exposure through capital markets. TCX's hedging portfolio increased considerably from \$161 million in 2015 (10% of TCX's total portfolio) to \$1,174 million in 2019 (26% of the total portfolio). These hedging activities contribute to TCX's market creation claim and are, therefore, discussed further in that section below.

The third to sixth set of measures revealed in my analysis are more common financial risk management practices, oriented towards protecting both TCX's shareholders and commercial counterparties. TCX carefully manages its capitalisation in line with an A credit rating, drawing on a Basel regulation framework. Over the period of study, TCX had a minimum total capital ratio set at 14% and tier 1 ratio of 10%. Since 2019, this was complemented with a further requirement determined by either 'two times Lehman' or a '99.9% market stress scenario', with an 18% floor – the latter is the binding constraint. TCX has always operated well within these limits, with a capital ratio of 24% in 2019 (and a high of 69% in 2009). This means TCX had a \$453 million buffer in losses (1.6 x Lehman scenario) before it would reach its threshold, and even if capital falls below the 14% threshold, there is still a significant buffer to protect market counterparties (another 2 x Lehman). To further protect market counterparties, there are restrictions on redemption for shareholders to prevent the capital ratio falling below 18%.

Measured differently, the value at risk (VaR) to net asset value (NAV) ratio was 41% at the end of 2019 (Standard & Poor's, 2020a). The significant shift in capital structure required for Standard & Poor's to change the rating, if VaR to NAV exceeded 75%, highlights how 'robust' this capital position is (Standard & Poor's, 2020a). Fourth, TCX actively invests in liquid local currency debt instruments to balance exposures in its primary portfolio. This activity accounts for a significant proportion of TCX's assets. In 2019, TCX held \$559 million in debt instruments and \$397 million in commercial discount papers, which represented 72% of total assets. On average over the period of study, these two instruments have accounted for 82% of assets. A different measure, TCX's liquidity ratio⁵⁶, which captures all liquid reserves, was very strong at 85% at the end of 2019, and has always been above 82% (Standard & Poor's, 2020a). Placing such a significant proportion of assets in liquid investments makes TCX's balance sheet liquid, but limits assets available for its primary activity of supporting local currency lending. Fifth, TCX manages its liquidity risk by maintaining minimum liquidity levels to cover future payment outflows. These levels are set by currency, depending on its convertibility and, therefore, the risk of not being able to fulfil obligations because of cross-border transfer timing constraints. For any currency, the single day liquidity gap (the difference between cash in and cash out) cannot exceed half the average spot foreign exchange daily trading volume. Additionally, for non-freely convertible currencies, no negative liquidity gap is allowed for the first week and month, and, under a stress scenario, maximum negative gaps cannot exceed for the first week 100% and first month 300% of the average turnover of one trading day. For freely convertible currencies, namely the euro, negative liquidity gaps for the first month can be a maximum of 10% of the liquidity investment portfolio, and the total gap must be lower than 50% of the liquidity investment portfolio. For its local currencies, this means TCX holds enough liquid assets in each currency to cover its obligations to counterparties for at least the next month, and potentially more depending on the volume of trading in that currency. Sixth, TCX limits the credit risk it faces by placing liquidity investments with highly rated counterparties and, for transactions with some end borrowers, through either guarantees or collateral support for its derivative agreements (credit support annexes). Together, these six risk policies amount to prudent risk management. Standard & Poor's describe TCX's capitalisation as 'robust', liquidity as 'very strong', including a 'very liquid' balance sheet, and both leverage and funding as 'strong' with a 'very stable' investor base, and 'very low' credit risks (Standard & Poor's, 2020a). While these policies protect TCX's shareholders and financial market counterparties, they can constrain fulfilment of its development claims.

⁵⁶ Liquidity ratio = liquidity reserve / (net asset value + long-term debt)

In addition to TCX's prudent financial risk management measures, its shareholders and market counterparties are further protected by public finance. TCX is partly financed by the Dutch and German governments (and the UK government from 2019) in the form of a subordinated convertible loan facility with total proceeds of over \$250 million. The terms of this debt facility mean donors suffer the first loss if TCX loses value, providing a significant first loss cushion to TCX's shareholders. Theoretically, the debt facility is subordinated until a threshold return is achieved, at which point donors may convert to B shares, although in practice this option wasn't exercised over the study period. The rationale for donor government assistance was to mitigate start-up risks, and compensate shareholders for the expected low financial return and 'innovativeness' of the fund. This compensation and the value of the expectation of public support is substantial. Standard & Poor's (2020b) rate TCX's standalone credit profile as BBB, but give it a three notch uplift to A given the likelihood of extraordinary support by AAA rated public shareholders. While public finance supports TCX, this isn't a simple story of public finance protecting private finance as many beneficiaries of the support are publicly owned DFIs, TCX's shareholders.

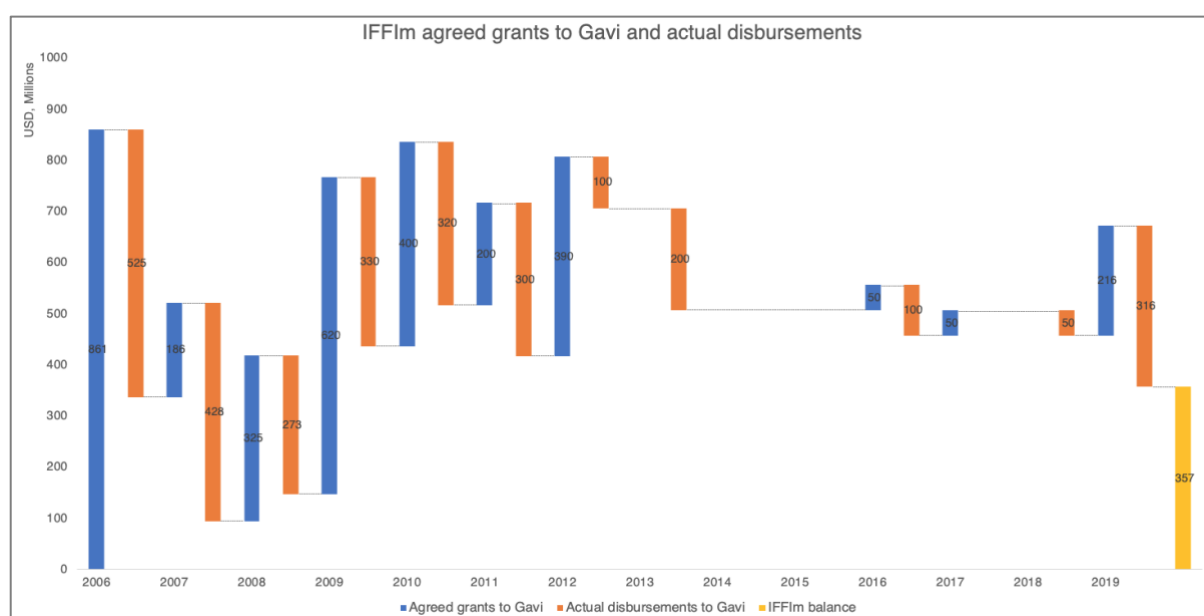
Following the money through TCX reveals a complex picture of risk management mechanisms, but where key findings are interestingly similar to the CCRIF case. As part of its development impact, TCX manages some currency and interest rate risk in development finance lending for its DFI shareholders and end borrowers. For its own account, TCX also adopts a range of risk management policies oriented towards protecting its shareholders and market counterparties, which can constrain its primary development activities. On top of this, public finance further limits the risk TCX's shareholders face, improving their risk-reward profile. Notably TCX's shareholders are largely publicly backed DFIs, so the picture is more complex than an often-noted pattern of public finance subsidising private finance (although DFIs are complex institutions blurring the public-private distinction, see for example Bracking, 2015b; Alami, Dixon and Mawdsley, 2021).

6.3.3 IFFIm

IFFIm aims to manage Gavi's funding risks by improving its predictability. Following the money reveals that IFFIm is not significantly contributing to smoothing Gavi's funding, largely because Gavi is not drawing on IFFIm's committed funds. At the end of 2012, IFFIm had \$707 million in liabilities on its balance sheet for future grants to Gavi that it had already committed to, but not yet paid (see Figure 25). Over the following years, 2013 to 2018, IFFIm agreed to \$100 million of new grants (in blue). However, of the \$707 million agreed and due to Gavi, IFFIm

has disbursed only \$350 million to Gavi since 2013 (in orange), leaving \$457 million in liabilities to Gavi at the end of 2018. After more activity in 2019 with new grant agreements of \$216 million and disbursements of \$316 million, IFFIm still had \$357 million in funds that had been agreed but not called on or disbursed to Gavi (in yellow). That balance (and indeed the balance at the end of previous years) represents a significant sum which Gavi has not drawn on. If Gavi is not drawing on agreed disbursements over many years, then it cannot be concluded that IFFIm is making a substantial contribution to Gavi's funding predictability.

Figure 25. IFFIm's agreed grants to Gavi and actual disbursements



IFFIm not only manages risk for Gavi in support of its development claims, but also for investors. IFFIm has set several strict financial limits on its operations to manage risk, all aimed at mitigating risk for investors, and it often operates well within those limits. For example, the gearing ratio limit means IFFIm only issues bonds against part of overall donor commitments – 70.3% as of December 2019, closer to 2/3rds previously – with the remainder kept as a reserve to protect bondholders. At this level, investors can still be paid if donor governments default on up to 29.7% of their pledges. On top of this, in the face of IFFIm's significant swap exposure level, from 2013 the World Bank applied a risk management buffer of 12% of pledges (more specifically the present value of expected future cash flow from pledges). Taking this buffer into account, IFFIm can service its debt to investors if governments

default on a colossal 41.7% of their pledges⁵⁷. A third example is IFFIm's liquidity policy, which means it maintains a minimum liquidity balance of 12 months' projected debt service to bondholders – a level Fitch considers a “comfortable liquidity cushion” (Fitch, 2016). This means IFFIm can still pay investors even if it loses market access and cannot rollover debt for a year. A final example is the treasury manager's (World Bank) requirement to prioritise debt service payments to bondholders over disbursements to Gavi. Taken together, IFFIm's risk management and policies are described as ‘conservative’, ‘prudent’ and ‘robust’ by the three main credit rating agencies (see for example Fitch, 2016; Moody's, 2018; Standard & Poor's, 2020c). As a point of comparison, these levels represent more restrictive risk management to which commercial financial intermediaries are typically subject. The distribution of the implications is noteworthy: all three policies limit the amount of ‘frontloading’ of funds to Gavi whilst providing a high level of protection for investors. These examples show some of the specific mechanisms at work distributing risk, and represent ways public finance in the form of aid from governments is used to protect investors and mitigate risk for private capital.

6.3.4 Summary: Managing risk

A remarkably similar set of key findings emerge in my analysis of the three case studies' claims to manage risk. All three make a meaningful contribution to managing risk in their support of development, however, the impact is limited in important ways. CCRIF provides rapid payouts after disasters but does not address the uncertainty of securing funding or provide the required scale. TCX manages currency and tenor mismatch for DFIs and their end borrowers, but in both cases the potential impact is blunted. Finally, IFFIm provides the possibility of addressing funding unpredictability for Gavi, but Gavi does not meaningfully draw on this. Furthermore, all three cases adopt a range of prudent risk management measures, oriented towards key financial stakeholders, which can constrain development activities. CCRIF's risk transfer programme is cautious, benefitting financial actors in reinsurance and capital markets, with the costs borne by member governments. TCX adopts a complex range of financial risk management measures which protect its shareholders and market counterparties, although they constrain TCX's primary activities. IFFIm has strict financial limits for its operations to protect bondholders, limiting the potential for frontloading funds to Gavi. Furthermore, in all three cases, public finance is enrolled to support or subsidise risk, often benefitting private financial actors. One noteworthy difference emerges in the TCX case – risk management

⁵⁷ In May 2020, IFFIm and the World Bank executed a swap re-couponing, ending the additional risk management buffer and leaving IFFIm with an updated gearing ratio limit of 71.8% from June 2020.

measures are oriented towards its shareholders, which are generally publicly not privately financed institutions.

Additionally, in the context of narratives around managing risk, follow the money analysis reveals that the activities of all three cases add risks to the global financial system. While CCRIF manages some risk for member governments and manages its own financial risks prudently, its financial model relies on reinsurance policies purchased in reinsurance markets, catastrophe swaps and catastrophe bonds issued in capital markets (intermediated by the World Bank), and transactions with counterparties related to its investment portfolio. In entering into these transactions, reinsurers, insurance-linked securities investors, and market counterparties to the investment portfolio face additional financial risks. Similarly, TCX enters into derivative agreements with its shareholders; transactions with capital markets for debt instruments, discount papers, and derivative instruments with respect to its investment, trading, hedging, and liquidity portfolios; and debt agreements with donor governments. This creates additional financial risks across currency, derivative, and debt markets. IFFIm's financial model requires issuing a significant volume of debt in the form of bonds in capital markets, which is purchased by investors who face a low, but still present, credit risk and interest rate risk. The map of the flow of money also shows that IFFIm enters into significant hedging transactions, intermediated by the World Bank, to swap interest rate and currency risk, and manages a significant investment portfolio which involves transactions for money market instruments, government debt, and corporate and asset-backed securities. IFFIm's financial model, therefore, creates additional financial risks in derivative and debt markets. At a financial system level, therefore, these IDF initiatives create additional credit, liquidity, interest rate, currency, model, and market risk at the global financial system level.

6.4 Follow the money: Creating markets

In this section I analyse IDF's claim to create markets, taking a follow the money approach to quantitatively assess the volume of additional financial transactions which each intervention supports, in order to understand their contribution to the scale of the relevant financial markets.

6.4.1 TCX

TCX's central development claim is to create or deepen local currency markets, achieved through two mechanisms. The first is transactions of local currency hedging products with its

shareholders. The second mechanism is selling local currency risk to investors through two financial instruments, either directly through cross currency swaps or in the form of local currency bonds. Follow the money analysis shows these activities have a limited impact on new local currency market creation and are spatially uneven, concentrated in financial centres in the Global North.

TCX's primary activity consists of derivative transactions with shareholders, offering two main types of products: non-deliverable and deliverable swaps. The vast majority of transactions are non-deliverable swaps which support shareholders' synthetic local currency loans to end borrowers, but this choice has important limitations for market creation. In this structure, TCX enters into a swap agreement with its shareholder to exchange net interest and principal payments to hedge the shareholder's economic currency risk, and these payments are settled in hard currency offshore. In parallel, shareholders enter into a synthetic offshore loan agreement with end borrowers, meaning local currency amounts are paid offshore in hard currency using spot foreign exchange rates. The advantage of this non-deliverable structure is "less local complexities" for TCX (TCX Annual Report 2010: 9), specifically it requires no local financial infrastructure to deal with legal, regulatory, and tax issues.

However, this choice of financial instrument is at odds with TCX's market creation goal – first, settlement is offshore which limits local market development, and second, loans are synthetic, so borrowers still settle in hard currency which limits the promotion of local currency financing. The alternative, significantly less used, product TCX offers is a (conditionally) deliverable swap. In this structure, settlements are made in local currency and TCX must have local financial infrastructure in place⁵⁸, although the conditionality means settlements revert to be made in hard currency in case of non-convertibility. In TCX's own words, "onshore trading ensures a secondary development impact through the active development of local capital markets and players" (TCX Annual Report 2009: 31). Furthermore, in this structure, TCX's shareholder and end borrowers enter into a domestic local currency loan agreement where payments occur onshore in the actual local currency, so payments are less costly and time consuming for end borrowers. There is a third important limitation to the non-deliverable swap instrument. Pricing is driven by global market expectations of currency depreciation; therefore, the hedge's pricing and cost of borrowing in local currency can be disconnected from the domestic onshore cost of funds. This disconnect is likely to be especially pronounced in times of crisis or when local capital markets are heavily regulated or closed. In contrast, a deliverable swap and transaction structure would connect the cost of local currency borrowing to local

⁵⁸ In practice, TCX operates through a partner for onshore transactions.

interest rates, which is arguably better aligned with deepening local currency markets and supporting local currency financing. In summary, examining the details of TCX's primary financial instrument, a non-deliverable swap, reveals that it is structurally limited in its potential to contribute to local currency market creation. Settlements take place offshore, in hard currency, and their pricing can be disconnected from domestic interest rates.

The second mechanism which supports TCX's market creation claim is on-selling currency risk to commercial investors via two financial instruments: offsetting swaps and local currency bonds. This activity has grown significantly in more recent years as TCX "increasingly operates as a warehouse of local currency risks" (TCX Annual Report 2019: 16). In 2020, TCX sold \$470 million in currency risk to investors, with the total since its launch at \$1.5 billion. The first instrument offsets local currency risk in the market. TCX sells some of the (long) local currency risk in its portfolio to commercial investors via cross currency swaps intermediated through investment banks, "building a market for ... illiquid currencies" (TCX Annual Report 2016: 7). This activity started in 2013 and reached a volume of \$152 million by 2020. For TCX, the logic is capital optimisation to free up resources for growth, while commercial investors seek to gain exposure to higher interest rate currencies. In the second instrument TCX sells currency risk to commercial investors through offshore local currency linked bonds. Since 2016, when TCX issued six local currency bonds with a value of \$27 million, these have grown rapidly to reach \$389 million in 2019 for 37 bonds. By 2020, TCX claims total market creation through bonds amounted to \$1.1 billion for 117 bonds (TCX, 2020b). The synthetic bonds are issued by an AAA or AA rated counterparty, typically TCX's development bank shareholders, so that the commercial investor purchasing the bond is only exposed to currency risk with very little credit risk. For TCX, like with offsetting, on-selling currency risk through bonds creates capacity for growth. For development banks, the logic to issue bonds is to access alternative funding, while commercial investors get access to an attractive asset with the returns (and risk) of a higher yielding currency but the low credit risk of TCX's highly rated shareholders. In these activities, TCX's role as a "frontier currency market maker" (TCX Annual Report 2018: 8) is to "repackage the currency risk in terms of size and tenor to make it an attractive asset for the investor" (TCX, 2020b).

While transaction volume linked to 'local' currencies in global financial markets is undoubtedly increased with TCX's on-selling currency risk, under both financial instruments (swaps and bonds) transactions take place offshore with commercial investors. This limits the potential for domestic local currency market development. Offshore transactions do not flow through the domestic markets of those currencies and settlements may not even take place in local currency. In addition, offshore markets are of limited benefit to some end borrowers who will

find it no easier to access local currency financing until it reaches domestic banks. Finally, local currency transactions with commercial investors which are purchasing the asset for exposure to higher yields does little to foster local currency denominated development funding more broadly. The result is perhaps better described as market expansion than market creation, with limited development benefits as it is offshore with existing financial institutions and may be in hard currency. Moreover, TCX's financial model grounded in on-selling risk also means its primary activities become "more dependent on the market's appetite for frontier currency risk" (TCX Annual Report 2019: 16) which introduces additional risk and volatility into TCX's operations as they become contingent on speculative demand for higher yielding currencies.

Both mechanisms, derivative transactions with shareholders and selling currency risk to commercial investors via swaps or bonds, involve market participants who are spatially concentrated in the Global North, in particular in major financial centres. TCX's shareholders are overwhelmingly Western European DFIs, representing almost 80% of shares in 2019, based in the Netherlands, Germany, the UK, Luxembourg, France, Belgium, Spain, Switzerland, Norway, Denmark, and Austria. Of these, the largest shareholders, which together hold over 60% of shares, are based in the Hague, Frankfurt, London, and Luxembourg – mostly global financial centres. Of the remaining shares, 14% are held by the Japanese DFI based in Tokyo and the World Bank's IFC based in Washington, D.C. Only 8% were held in the Global South, by the Development Bank of Southern Africa based in Johannesburg, South Africa, and the African Development Bank based in Tunis, Tunisia, and Abidjan, Côte d'Ivoire, over the period of study. The commercial investors which are TCX's counterparties in swaps and bonds transactions are also largely based in the Global North, as they are all 'offshore' with respect to the local currency risks they are buying. Although less precise information is available about these actors, there is some evidence to suggest they are also based in financial centres. Additionally, TCX itself, and most of its service providers, are based in Amsterdam. The consequence is that TCX's market creation is spatially uneven. Furthermore, the participants in these markets are existing financial institutions, not new actors. TCX, therefore, largely supports market expansion for established financial actors centred in financial centres in the Global North.

In summary, TCX's local currency market creation activities are overwhelmingly limited to offshore financial market expansion, limiting potential developmental benefits for end borrowers. This market expansion involves established financial actors and is spatially uneven, concentrated in financial centres in the Global North (see also Dafermos, Gabor and

Michell, 2022). This has important geoeconomic consequences because material rewards are, therefore, also distributed spatially unevenly.

6.4.2 IFFIm

IFFIm's development claims are not explicitly centred on market creation. However, as noted in Chapter 4, IFFIm is celebrated by the finance (and development) world as a pioneer in developing social bonds and social impact investing markets. These plaudits are in many ways justified. IFFIm was the first issuer of 'vaccine bonds'. Due to its significant scale, issuing \$6.6 billion in bonds between 2006 and 2019, IFFIm has single-handedly created a significant market for vaccine bonds, with investors participating from around the world, considerably expanding the broader social finance market. Furthermore, beyond the financial scale of the flows of money created, IFFIm has been influential in defining and governing social finance, for example shaping the International Capital Markets Association's set of Social Bond Principles, released in 2017, which aim to support the social bond market (ICMA, 2017).

What is interesting following money through the vaccine bond market is its geography. The market, and connected distribution of material rewards, has a particular spatial pattern concentrated in financial centres in the Global North. As a financial mechanism, bonds distribute financial rewards to investors through interest and principal payments from IFFIm, drawing on income from donor government grants and other bond issue proceeds. Unsurprisingly, the investors buying IFFIm's bonds and receiving a financial return (as outlined below, a crude indicative average yield of around 5%) were primarily from the Global North, representing over 75% of the face value (Figure 26). Looking not only at place but also the types of actors reveals the concentration of bondholders in financial centres: over 70% of the face value was placed with private investors, and 25% with central banks and other official institutions (Figure 27). The majority of private investors were established financial institutions, including banks, asset managers and fund managers, pension funds, insurance companies and other corporates which, together with central banks and other official public institutions, tend to be concentrated in financial centres. It is noteworthy that a significant 25% of the face value of the bonds was purchased by publicly financed institutions, further undermining IFFIm's claims to 'leverage' private resources and aid additionality. Perhaps more surprisingly, a significant volume of investors were in Japan, and these were overwhelmingly retail investors. This is because IFFIm issued 23 Uridashi bonds with a total face value of \$2.4 billion between 2008 and 2013. Uridashi bonds are a secondary offering outside Japan, typically denominated in a foreign currency and short-term, and sold to retail investors who want

exposure to higher-yielding currencies than the Japanese Yen to achieve a higher return than the historically low domestic interest rate (IFFIm's Uridashi bonds were issued in South African rand, Australian dollars, New Zealand dollars, US dollars, Brazilian real, and Turkish lira). In the wake of the Global Financial Crisis, the Uridashi market offered low spreads meaning IFFIm could use this spatialised niche to shield itself from widening spreads and achieve lower borrowing costs – entangling retail investors in Japan with citizens around the world in Gavi's immunisation programmes.

Figure 26. Geography of investors in IFFIm bonds

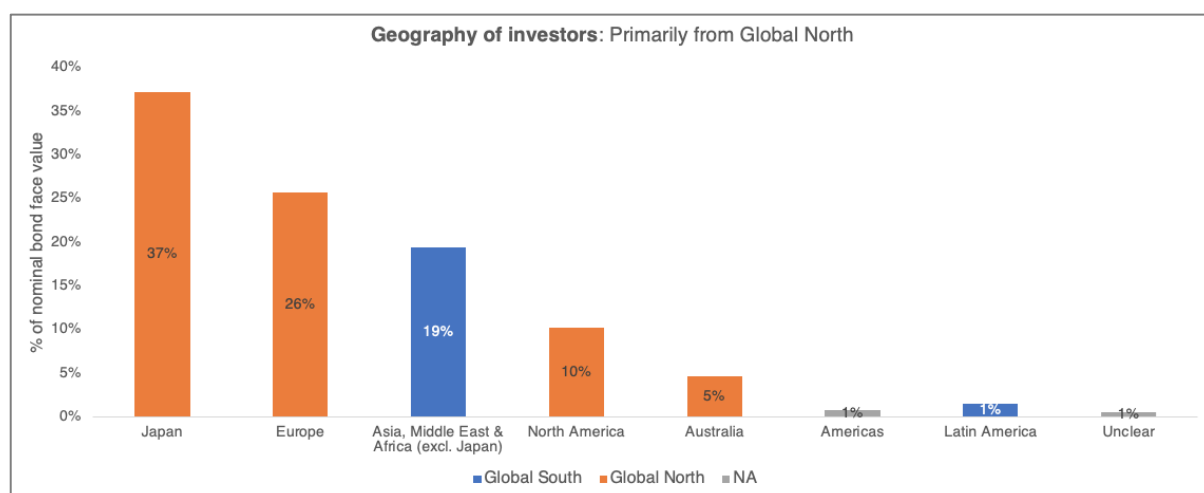
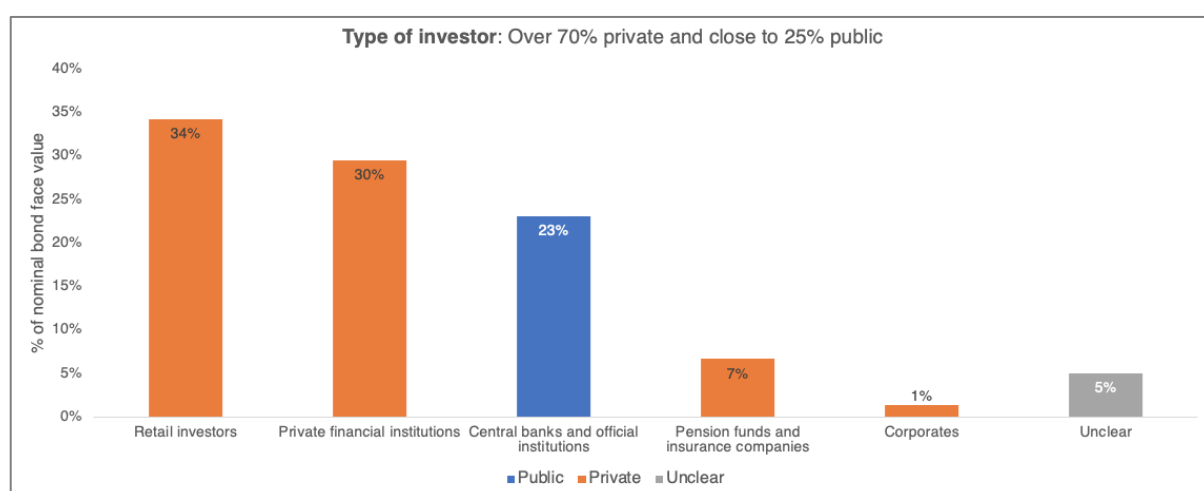


Figure 27. Type of investors in IFFIm bonds



A 'secondary' market for professional services attends to the vaccine bond market, just as with TCX's local currency markets and CCRIF's catastrophe risk markets. IFFIm's market for services, and hence the distribution of material rewards through fees as a financial mechanism, shows a similar, perhaps more pronounced, spatial pattern centred on financial centres, especially London. The various financial institutions involved (arranger, managers, trustee, paying and transfer agents, registrar, exchange agent, and listing agent) were well-known and based, for the most part, in either London or Luxembourg – the latter is where the vaccine bonds are listed. Professional services firms (auditors and legal advisers to the various parties) were also well-established firms generally based in London, where IFFIm has its registered office. The only exceptions to this were for four of IFFIm's 35 bonds which were issued outside its Global Debt Issuance Programme. These were IFFIm's Australian and New Zealand Note Programme where firms earning fees were also registered in Sydney and Auckland; and IFFIm's three sukuk⁵⁹ where companies were also registered in Grand Cayman, Frankfurt, Doha, Kuala Lumpur, Abu Dhabi, Riyadh, Dubai, and Bandar Seri Begawan.

Taken together, following the money reveals how the institutions and organisations which make up the significant vaccine bonds market are concentrated in financial centres in the Global North. Connected to this uneven spatial pattern of actors, is a spatially uneven distribution of material resources in the form of payments on bonds and fees (discussed further below). Additionally, the market participants, as both bondholders and service providers, are established financial institutions which are already active in their sectors.

6.4.3 CCRIF

Like IFFIm, creating markets is not the fundamental aim of CCRIF. However, the financial model does support catastrophe risk markets, in particular expansion of risk exposure to the Caribbean and Central America, beyond so-called US 'peak perils' (see Johnson, 2014). First, follow the money analysis shows CCRIF purchases a significant volume of external risk capital, contributing to the scale of catastrophe reinsurance markets and catastrophe related financial instruments in capital markets. Depending on the season, CCRIF purchased a total of between \$107.5 million and \$209 million in external risk capital over the period of study through its programme of reinsurance (\$90 million to \$209 million) and catastrophe swaps and bonds in capital markets (\$15 million to \$30 million). This makes up a small proportion of the

⁵⁹ A sukuk is a financial certificate used in Islamic finance as an alternative to conventional bonds (more detail in Chapter 5).

global catastrophe reinsurance market but is significant regionally. CCRIF was the World Bank's first natural hazard catastrophe bond. Since then, the World Bank's Disaster Risk Insurance Platform, which intermediates CCRIF's catastrophe swaps and bonds, only lists eight other catastrophe risk transfer programmes (World Bank, 2020b). Second, beyond scale in dollars, CCRIF supports the broader market for parametric insurance policies. As an early (celebrated) adopter of parametric policies, CCRIF acts as a proof of concept and example on which to model future initiatives and contracts, including for example the African Risk Capacity (and others mentioned in Chapter 4). CCRIF literally acts as an advocate for this type of financial instrument, leading and participating in workshops and influential conferences, such as COP15.

Following the money, as with IFFIm and TCX, reveals the uneven spatial distribution of the market expansion CCRIF supports. Its reinsurance programme is placed with between three and ten different reinsurers depending on the season⁶⁰. The reinsurance companies and their headquarter locations are Swiss Re based in Zurich, Switzerland; Munich Re and Hanover Re based in their namesake cities in Germany; Paris Re and SCOR, both based in Paris, France; and Partner Re and Everest, both headquartered in Bermuda. CCRIF also places reinsurance with Lloyd's of London Syndicates⁶¹ Hiscox, Catlin, Beazley, and Antares, which are headquartered in either Bermuda or London. This points to the spatially uneven expansion of catastrophe reinsurance markets, concentrated in a small selection of financial centres in the Global North, specifically cities in Europe – in Switzerland, Germany, France, and the UK – and Bermuda. Although less precise information is available, investors in CCRIF's catastrophe swap and catastrophe bond, intermediated by the World Bank, are also likely to be located in financial centres in the Global North⁶². Investors in CCRIF's catastrophe bond, issued in 2014, for example, were specialist catastrophe funds, hedge funds, and a standard investment management company. This spatially uneven pattern is important because material rewards in the form of reinsurance contract premiums and payments on swaps and bonds are, therefore, also distributed spatially unevenly. Furthermore, the reinsurers and financial investors are already established active participants in catastrophe risk markets, indeed the reinsurers are major global firms for which exposure to the Caribbean region represents a

⁶⁰ Information on the exact reinsurers is only available up to 2015/2016. The reinsurers are not explicitly listed for the seasons from 2016/2017 to 2018/2019, however, there is evidence to suggest the list did not significantly alter.

⁶¹ The Lloyd's market is an insurance and reinsurance market in London. Lloyd's of London is a corporation governed by Acts of Parliament. Lloyd's operates as a market where multiple financial backers, grouped in syndicates, join together to pool capital and accept insurance risk.

⁶² Johnson (2014) reports investors in Aon Benfield's 2011 insurance-linked securities deals were from the US (47%), Switzerland (33%), Bermuda (7%), the UK (5%) and 8% from elsewhere, a highly concentrated pattern.

small proportion of their activity. CCRIF is, therefore, like TCX, perhaps better understood as supporting market expansion rather than creation.

A similar spatial pattern concentrated around financial centres emerges among the various other actors which CCRIF's activities support. CCRIF's office itself and its core service providers are mostly located in the Cayman Islands or London, including the insurance manager, asset managers, and reinsurance broker. There are, however, two exceptions to this pattern. The facility supervisor is based across the English-speaking Caribbean region, and the consultancy which supports CCRIF's risk modelling is based in Washington, D.C. The professional services firms, such as auditors, acting for CCRIF are global corporations which work out of their offices in the Cayman Islands. Finally, the financial institutions supporting CCRIF's catastrophe bond, including those supporting the World Bank's broader debt programme which intermediated CCRIF's risk transfer to capital markets, were large global financial institutions based in London and New York, and two of the reinsurers listed above, namely Munich-Re as co-structuring agent for CCRIF and Swiss Re as advisor to the World Bank. Accordingly, the catastrophe bond's named financial centre was New York, and it was listed in Luxembourg.

6.4.4 Summary: Creating markets

As with the first two development claims, relatively similar findings emerge across the three case studies in analysis of the claim to create markets. Following the money reveals that all three initiatives do support a significant volume of transactions in financial markets. TCX in local currency trading offshore, IFFIm in vaccine bonds, and CCRIF in catastrophe risk markets. However, this is better conceptualised as market expansion, rather than creation, with established financial actors. The flows of money and actors which constitute these markets are overwhelmingly based in the Global North, concentrated in financial centres. The market expansion is, therefore, spatially uneven, which has important geoeconomic consequences for the distribution of material rewards, analysed in the next section.

6.5 *Hiding in plain sight: Private profit*

In all three cases a significant final benefit is hiding in plain sight: the opportunity for private profit. If the second part of the 'win-win' narrative means benefits for private partners, then IDF is fully delivering on that claim. Resources are peeled off by private actors as the money

circulates through the case studies through a variety of mechanisms, most notably in the form of interest payments on debt including bonds, premiums for reinsurance contracts, dividend payments to shareholders, speculative returns, and fees for services. Analytically, there is a distinction to be made within the different forms of profit. On the one hand is visible (sometimes celebrated) profit for investors and other critical financial actors, which is part of the ‘win-win’ story. Here, following the money reveals the significant scale of this profit opportunity. On the other hand, is a more hidden form of profit for financial intermediaries, often in the form of fees. Here, follow the money uncovers and shines a light on these flows of resources. For example, payments to investors on vaccine bonds are evident in IFFIm’s model (the interesting finding is their scale), whereas the fees paid to financial intermediaries are more hidden. Critically, many of these figures are unavailable without the sort of forensic financial analysis I have conducted as part of following the money, and they are at odds with the claims around low costs that all three cases make.

6.5.1 IFFIm

One of IFFIm’s key claims is low funding costs, because it is AAA rated by credit rating agencies and so can achieve low spreads on its bonds. Following the money reveals a different story of an expensive model with a plethora of mechanisms through which money is transferred to private financial actors. First, investors received good yields on IFFIm’s 35 bonds issued by 2019 – many of IFFIm’s bond issuances are oversubscribed – with fixed rate bonds (29 of the 35) priced to deliver an average 5.0% return and floating rate bonds priced with a decent average margin of 0.15% above LIBOR (6 of the 35)⁶³. These rates of return take into account not only interest rates but also that IFFIm has issued close to half of the 35 bonds at an issue price below 100% (including three deep discount bonds with prices close to 50%, although most exceed 99%) and redemption at par, meaning IFFIm receives a lower amount in bond proceeds than it must repay in principal to noteholders. For the 2006 to 2019 period, these rates of return amount to borrowing costs of \$879 million in interest and \$135 million in redemption above issue price. Second, my analysis reveals that IFFIm has incurred \$33 million in bond issuance costs to financial institutions, \$24 million in professional services fees, and \$29 million in treasury manager’s fees to the World Bank over 2006 to 2019. Third, IFFIm enters into costly hedging agreements to swap currency risks on all its grant agreements from donors on the asset side, and to swap interest rate and currency risk on the

⁶³ An alternative calculation taking averages weighted by the bond’s nominal amount gives a higher weighted average return of 5.5% for fixed rate bonds and a higher weighted average margin of 0.18% over LIBOR for floating rate bonds.

bonds it issues on the liabilities side, leaving IFFIm with \$0.5 billion in liabilities for swap contracts on its balance sheet in 2019. This is a substantial sum, as evidenced by the additional risk management buffers the World Bank applied (see the analysis of risk above). Fourth, IFFIm's credit rating was downgraded to AA- over the 2012 to 2016 period driven primarily by sovereign credit rating downgrades of the British and French governments which back IFFIm. While these all represent costs to IFFIm, donors, and ultimately Gavi and its beneficiaries, they are a bonanza for other actors.

Hiding in plain sight, payments on bonds and fees represent a significant profit opportunity with low risk for bondholders, financial institutions, and professional services firms. IFFIm has paid \$879 million in interest, with more already committed in future through existing outstanding bonds, and paid \$135 million in redemption above issue price to bondholders between 2006 and 2019. Over the same period, as noted above, financial institutions have charged fees of \$33 million for bond issuance costs, and professional services firms have earned \$24 million, divided into \$10 million for lawyers, \$5 million for auditors, \$4 million for insurance (trustee indemnity), and \$3 million for consultants, with another \$2 million spent on trustee meetings and travel. Of the \$29 million in treasury manager fees the World Bank charged IFFIm, it is likely some of this was subsequently paid to private financial institutions in fees for hedging contracts and transactions related to IFFIm's large investment portfolio. Taken together, over the 2006 to 2019 period, interest payments to bondholders, and payments to financial institutions and professional services firms total \$936 million. As points of comparison, this represents 30% of the \$3,137 million in donor payments received, 14% of the \$6,546 million in donor pledges made, 15% of the \$6,152 million in bond proceeds raised, and 32% of the \$2,942 million in disbursements to Gavi over the same time period. When redemption payments above issue price or the World Bank's treasury manager fees are included, these figures increase further. Looking forward from 2020 onwards, through bonds that have already been issued (including three issued since 2019), IFFIm has already committed approximately a further \$440 million to bondholders (an estimated \$315 million in interest and \$125 million in redemption above issue price; figures are \$84 million and \$122 million excluding the three latest bonds), and will incur more fees for future bond issuances and annual reporting processes. In contrast, \$357 million more has been committed to Gavi.

IFFIm's financial model provides substantial opportunities for private profit. As money circulates through the project, it is distributed (spatially unevenly) to private financial actors through the mechanisms of interest and principal payments on bonds and fees. At around \$1 billion, the scale of the material rewards for bondholders is staggering. Furthermore, following the money reveals non-trivial amounts are distributed to financial intermediaries supporting

IFFIm's financial mechanisms. These findings also further undermine IFFIm's central development claim to leverage private finance. The payments represent a large cost for donors and limit potential disbursements to Gavi.

6.5.2 CCRIF

As with IFFIm, one of CCRIF's important claims is cost effectiveness, supported by two main mechanisms in its financial model. First, CCRIF maintains a reserve of funds to retain some of the risk transferred by member governments, specifically it retains lower risk layers because these are prohibitively expensive to transfer to the private sector. The second mechanism is risk pooling (see also Christophers, Bigger and Johnson, 2020). CCRIF aggregates the country specific risks of individual governments into one diversified portfolio which reduces reinsurance premiums, by an estimated 50% compared to the cost of coverage for all the countries individually (World Bank, 2008).

However, following the money reveals that, despite these mechanisms, CCRIF incurs significant costs in fees relating to its operations, premiums for reinsurance contracts, and payments on catastrophe swaps and its bond. Fees paid to professional services firms total \$24.3 million for the 2007/2008 to 2018/2019 seasons for the facility supervisor, asset manager, captive manager, publicity and communications, consultancy, calculation agency and licenses, auditors, and lawyers (excluding reinsurance brokerage). In addition, CCRIF incurred further operating expenses of \$7.8 million for trust expenses, meetings, sundry and bank charges, as well as board and executive remuneration (\$5.7 million), and insurance for directors and officers. Together these total \$32.2 million, which is 12.5% of the income CCRIF received from governments for their insurance policies of \$257 million. This far exceeds the 5% guideline CCRIF and the World Bank set out in its early years as a reasonable level of operating expenses, and outstrips even further the 3% market benchmark for captive insurers. It also excludes CCRIF's reinsurance brokerage fees. Broker fees for the first three seasons were charged at 10% of the first \$5 million in premium, 5% of the next \$10 million, and 4% of the remaining premium, and then a fixed fee was charged from the 2010/2011 season. Although the exact broker fee is not reported separately from the reinsurance premium in CCRIF's financial statements, my calculations suggest the commission amounts to between \$0.5 million and \$0.7 million per year. Adding these operating costs (conservatively using \$0.5 million per annum), means total operating expenses reach \$38.2 million, or 14.9% of CCRIF's income, almost three times the guideline. Additionally, CCRIF has spent \$5.2 million in broad research and product development expenses, which includes developing risk models and

computer loss modelling software. Including these takes costs up to 16.9% of CCRIF's income from premiums.

In addition to fees, CCRIF spends a significant sum to transfer risk to the private sector through reinsurance, catastrophe swaps, and a catastrophe bond. CCRIF spent \$132 million on reinsurance contracts across the 2007/2008 to 2018/2019 period⁶⁴. For the seven seasons from 2007/2008 to 2013/2014, CCRIF transferred some of its highest risk layer to capital markets through catastrophe swaps, intermediated by the World Bank. The average rate on line for the swaps was 7.95%, which means an estimated \$13.6 million in payments. For the next three seasons, between 2014/2015 and 2016/2017, CCRIF transferred risk through a catastrophe bond, also intermediated by the World Bank. Coupon payments were 6.3% plus 6-month LIBOR (floored at 6.5%), which totals interest payments of \$6.4 million over the three years. Additionally, CCRIF pays fees to the World Bank for intermediating the swaps and bonds. Deducting operating expenses, reinsurance premiums, and payments on the swaps and bond from CCRIF's income of \$257 million leaves just \$67 million (26%). This is the portion that goes towards CCRIF's all-important reserves to retain the lower risk levels, various technical assistance programmes across the region, and other costs which do not relate to CCRIF's core risk management activities or start-up expenses. These findings demonstrate that CCRIF's risk management is expensive for member governments, however, these expenses represent opportunities for profit for other actors.

As with IFFIm, a significant opportunity for private profit is hiding in plain sight. This is distributed through a range of mechanisms: fees, reinsurance premiums, and returns on insurance-linked securities. First, the significant costs outlined above which CCRIF incurs as part of its operations represent \$35.5 million in revenue in fees. Between the 2007/2008 and 2018/2019 season, professional services firms have charged fees totalling an estimated \$24.3 million, made up of \$9.0 million for the facility supervisor, \$8.9 million for asset managers, \$1.5 million for captive management services, \$1.6 million for publicity and communication, \$0.7 million for consultants, \$0.5 million for the calculation agency and licenses, \$1.7 million for auditors, and \$0.4 million for lawyers. On top of these fees, the reinsurance broker has charged at least an estimated \$6.0 million, and the consultancy specialising in hazard and risk assessment has charged \$5.2 million for research and development. Second, and perhaps most significantly, CCRIF purchases reinsurance which offers the opportunity for profit in the form of premiums (see also Johnson, 2022). Reinsurers, following standard market pricing

⁶⁴ This includes total reinsurance premiums of \$137.3 million net of the total ceding commission which CCRIF receives of \$5.3 million, plus reinsurance brokerage fees.

practice, charge CCRIF premiums that exceed CCRIF's expected loss. For example, in CCRIF's first season, it paid a premium of \$7.9 million to cover average annual loss of \$4.6 million, meaning the reinsurance multiple was 1.9 (or cost over expected claims payout covered by reinsurance). In 2010/2011, that multiple had increased to 2.6 for a \$10.2 million premium to cover average annual loss of just \$4.1 million, reflecting high volatility in catastrophe insurance prices. In total, over the 2007/2008 to 2018/2019 period, CCRIF spent \$132 million on reinsurance contracts. As noted in the section on leveraging private finance, this expense may not be necessary for CCRIF to provide insurance to its members. For reinsurers, however, CCRIF's reinsurance model delivers significant premium revenue, underscored by the fact reinsurers paid only \$32.1 million in payouts. Third, payments of \$13.6 million and \$6.4 million on catastrophe swaps and the catastrophe bond also represent private profit for investors, which are reinsurers, specialist catastrophe funds, hedge funds, and a standard investment management company.

While not as staggering in absolute scale as IFFIm, CCRIF's financial model distributes substantial material rewards as private profit relative to the scale of its operations, funded publicly. The flow of money is distributed spatially unevenly, generally from South to North (in line with Johnson, 2022), to private financial actors through the mechanisms of reinsurance premiums, returns on catastrophe swaps, interest on bonds, and fees. Analytically, as with IFFIm, these flows can be distinguished between more evident flows to reinsurers and catastrophe risk investors connected to CCRIF's risk transfer programme, and less visible flows distributed to intermediaries. The cumulative flow across the mechanisms amounts to \$173.9 million, a considerable sum representing 68% of CCRIF's income (\$257.1 million) and more than total payouts to members of \$139.5 million (125%). This represents a significant cost for member governments, CCRIF's ultimate funders and beneficiaries, and donors.

6.5.3 TCX

Following the money through TCX reveals money is distributed through a range of mechanisms to private and publicly backed actors. First as fees, which show that TCX incurs high operational expenses. Second, equity returns and dividend payments deliver a moderate return for shareholders. Third, commercial investors have the opportunity to make speculative gains on local currency swaps and bonds, and earn interest on those bonds. Finally, TCX incurs modest debt servicing costs for donor finance. As TCX's shareholders are mostly publicly backed development banks, some of these flows of money complicate the story of publicly funded private profit in IDF. Although, as alluded to earlier, DFIs are complex financial

institutions (see for example Bracking 2015b). The TCX case also speaks to the sometimes blurry distinction between public and private institutions, state-capital hybrids in development, and more broadly a changing role of the state, or state capitalism (see for example Alami, Dixon and Mawdsley, 2021; McGoey, 2014).

TCX's operational group is expensive. Between 2007 and 2019, the TCX fund incurred \$100.6 million in fees, which, like for IFFIm and CCRIF, represent revenue for the parties receiving them. A significant majority were fees for the TCX Investment Management Company (TIM), which earned \$81.7 million in revenue (split into \$63.6 million in management fees and \$18.1 million in performance fees). The TCX fund's risk manager, Cardano Risk Management, earned \$16.3 million. Together, the 'Cardano Group⁶⁵' earned \$98 million, or an annual average of over \$8 million. The remainder of the operational group's expenses were depositary fees of \$0.7 million, administration fees of \$0.6 million, and a one-off finance charge of \$1.3 million paid to the ultimate owner of TIM, the Cardano Group. As points of comparison, these costs represent 37% of TCX's investment result, 29% of the investment result plus interest income (which can be thought of as TCX's income), 15% of the shareholders' total subscriptions of shares, and 1.4% of loans hedged.

In parallel to TCX's operational group, TCX paid a further \$10.3 million in professional services fees, broken down into \$2.9 million for auditors, \$2.8 million for lawyers, \$1.3 million for research, \$1.2 million for operational auditors, \$1.1 million for a rating agency, \$0.5 million for compliance, \$0.3 million for fundraising advice, and \$0.2 million for tax advice. Adding another \$5.4 million for governance (\$2.1 million), management remuneration (\$1.9 million), and other expenses (\$1.4 million) takes TCX's total operating costs over the period to \$116.4 million. That represents 43% of the investment result, 34% of TCX's income (investment result and interest income), 17% of share subscriptions, and 1.6% of loans hedged. While 1.6% may appear small, it is significant. Although not the same financial model, for comparison, benchmark typical competitive fund management fees of 0.5% to 1.0% of assets under management are common in the financial services industry, although the TCX fund has 'active' management and a niche strategy conducting a relatively high volume of transactions across many currencies given its size. It is worth noting that these figures on a cumulative basis hide the high volatility in TCX's investment result. For example, the operating expenses vary from

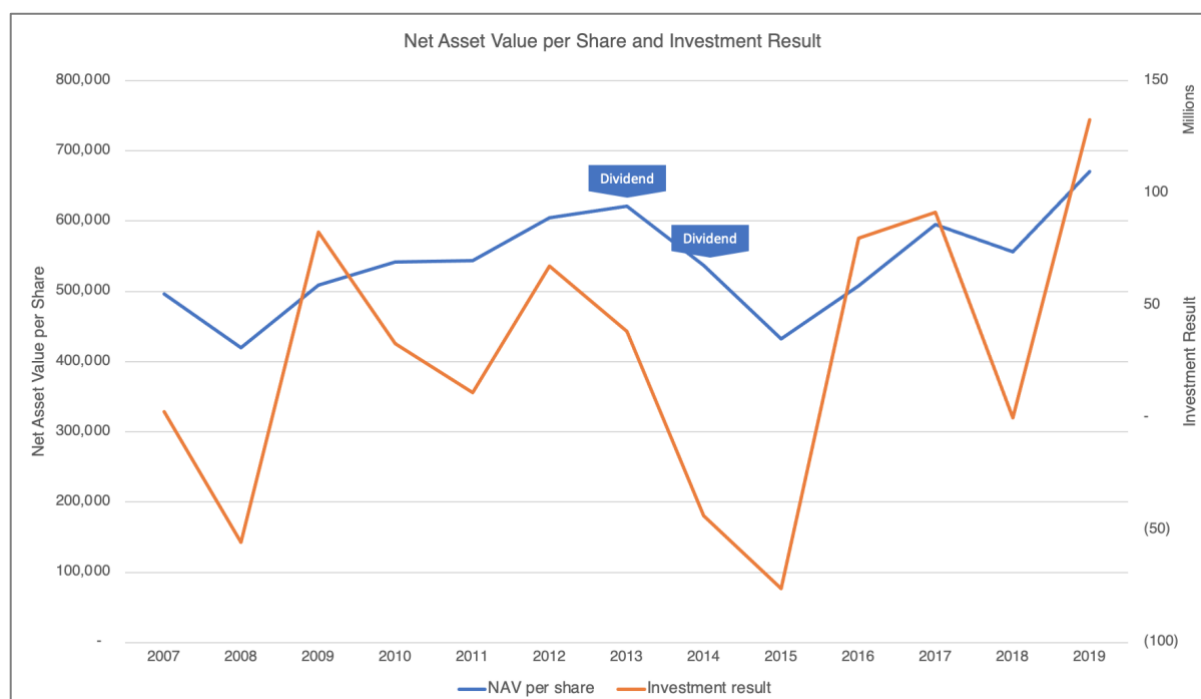
⁶⁵ The TCX Investment Management Company's earnings since 2010 accrue to its owner, Cardano Development, which was a sister company to the risk manager, both owned by Cardano Holdings, and later transferred to Stichting Cardano Development, a charitable status organisation. More discussion of this arrangement is in Chapter 7.

-61% to 78% as a percentage of income. Reported total expenses as a percentage of reported income vary from -152% to 226% over the 2007 to 2019 period⁶⁶.

TCX's financial model is expected to deliver a positive return for its shareholders over the long-term in the form of increased equity value and dividends. As most shareholders are development banks, some of the money circulating through TCX is distributed to public or public-private institutions, unlike the pattern in IFFIm and CCRIF. The expectation is that higher interest rates in local currencies relative to the US dollar, on average, compensate for the expected currency depreciation and cover a small risk premium. In 2009, TCX outlined its average earnings expectation for a diversified portfolio of currency exposures at 2.4% per annum above the equivalent US dollar exposure over a ten-year investment horizon (TCX Annual Report 2009). Qualitatively, the expectation was to "yield a modest positive return over the longer term" (TCX Annual Report 2011: 5). Since inception, TCX has delivered a reasonable 35% progression in net asset value per share from \$496,316 in 2007 to \$670,790 in 2019 (see Figure 28). On top of this, dividends of \$15,000 per share were paid twice to shareholders for 2012 and 2013 results, totalling a distribution of \$27.2 million. The internal rate of return (IRR) in 2012 stood at 3.44% (2.25% over LIBOR), although by 2016 this had fallen to 0.8% IRR, and then recovered to 2.25% in 2017 (1.47% over LIBOR). For shareholders this performance is acceptable. Although not exceptional, TCX is delivering a moderate positive return. While positive, TCX's returns are volatile which reduces their appeal for investors (see Figure 28). Volatility is driven by changes in the mark-to-market of its derivatives portfolio which reflects changes in exchange rates to the US dollar and interest rates. TCX's reported investment result has ranged from a loss of \$75.9 million to profit of \$132.6 million in 2015 and 2019 respectively. Reflecting this, TCX's reported net result has ranged from a \$92.9 million loss to a \$114.3 million profit in 2015 and 2019. It is worth noting some of the increase in absolute figures, in part, reflects that TCX has grown over time, however, investment result as a proportion of assets remains volatile. As Standard & Poor's notes in its rating report, TCX's return is structurally positive but the "fund clearly does not cover the rate of return a private investor would require, given the volatility of its performance" (2020a: 7).

⁶⁶ Note that reported total expenses and income in the financial statements are not identical to the costs reported earlier in the paragraph from my follow the money analysis. This is because reported expenses include some line items that I do not include as ongoing operating expenses, specifically incorporation costs, VAT and the backstop guarantee facility fee provided by FMO. Similarly, reported income includes certain line items which I do not include in investment or interest income, including (negative) interest expenses, (negative) provisions for credit losses, (negative) foreign currency translation, and line items related to donor contributions or shareholders which I consider under financing costs.

Figure 28. TCX net asset value per share and investment result



Beyond returns for shareholders, TCX also offers opportunities for private profit to commercial investors through its offsetting and local currency bond activities. In both cases, TCX sells exposure to local currencies. For investors, this offers the (speculative) opportunity to make higher returns driven by the generally higher interest rates on these currencies compared to hard currencies like the US dollar or euro. These opportunities are attractive as investors face minimal credit risk transacting with TCX and its shareholders. Follow the money analysis reveals these opportunities are significant in scale. Up to 2020, TCX had sold \$152 million to commercial investors through cross currency swaps and issued \$1.1 billion in local currency bonds. Unfortunately, the precise return which commercial investors earned on these investments is not followable as, once sold, investors' foreign exchange gains do not enter TCX's financial accounts. So, although the approach does not precisely quantify the return, TCX does offer opportunities for profit for commercial investors in the form of speculative currency gains and interest payments, and there is evidence the scale is significant.

Finally, TCX also incurs modest costs for its debt financing and its guarantee facility. These facilities were financed by donors so reveal how public finance supports IDF and the financialisation of development. As noted above, TCX is partially debt financed by the Dutch and German governments (with the UK government joining in 2019) through a \$250 million

subordinated convertible loan. The loan provided a first loss cushion to shareholders with the rationale of mitigating start-up risks and improving the fund's risk-return profile. The objective was also to encourage TCX to target countries in Sub-Saharan Africa, countries classified as Least Developed Countries (LDCs) in the OECD DAC list of ODA recipients, and the microfinance sector. The debt facility was essentially interest free, with the exact terms varying over its lifetime. Instead of interest payments, the agreement provided for TCX to deposit a small percentage (3% at the outset) of disbursements of the debt into an earmarked reserve (variously termed Joint Donor Escrow Account (JoDEA), Donor Assets, or Donor Commitments), together with an annual payment equal to the lesser of either the previous year's net profit, or previous year's net positive cash flow, or USD three/six-month LIBOR over the outstanding debt amount. In 2013, the interest rate payable on donor assets was then fixed at 2.5% per annum. These earmarked donor funds, which could be considered interest payments, were to be used for projects approved by the donors. In 2016, although the principle of earmarking certain donor funds continued, the JoDEA was terminated, and the Dutch government converted its share into a First Loss Loan facility with an interest rate of 2.5% and the German government received a cash payment. From this point onwards, the donors agreed to receive 2.5% per annum on their share of the debt either as a cash payment or as additions to existing loans. Although the precise terms vary, the cost to TCX of servicing this debt financing is deliberately low. In 2012, TCX received a subordinated loan from IDB of \$20 million, with the aim to support activities in Latin American and Caribbean currencies. The loan agreement provides for TCX to pay a compounded return of the minimum of the compounded three-month LIBOR and the IRR on TCX's equity, plus 30% of the maximum of three-month LIBOR, the IRR on TCX's equity, and zero. These terms mean TCX only pays IDB a low rate of return of three-month LIBOR if it performs poorly. For the backstop guarantee facility, FMO charged TCX total fees of \$1.7 million. To begin, from 2007, FMO charged fees of \$335,000 per annum. From 2010, reflecting the fact the facility was not used as anticipated, the fee was reduced to \$150,000, structured as an active guarantee fee of 0.3% on the outstanding amount and a standby guarantee fee of a varying percentage depending on the amount and year. In practice, TCX incurred fees of \$185,000 in 2010 which declined to a low of \$38,000 in 2014 and increased thereafter to \$95,000 in 2019.

6.5.4 Summary: Private profit

Following the money reveals significant opportunities for private profit in all three cases. Quantifying the flows of money uncovers that the sums of money redistributed to private financial actors are substantial. This is partly driven by expensive operating models across the

three cases, which incur high fees for professional services which are outsourced. Partly this is driven by the cost of the financial instruments at the heart of IDF financing models. Material resources are distributed to private finance actors through a range of mechanisms, including interest on bonds, fees, reinsurance premiums, payments on insurance-linked securities, speculative returns, and equity returns and dividends. A distinction can be made analytically between visible flows of money which are part of IDF's 'win-win' narrative and often celebrated, and more hidden flows to an assemblage of financial and other intermediaries which are an integral part of IDF financial models. In the case of TCX, some of the flow of money is also distributed to public finance actors, its shareholders, through equity returns and dividends, complicating the story. As the previous section showed, these material rewards are distributed spatially unevenly, concentrated in financial centres in the Global North. Uncovering such high costs not only undermines IDF's claim to cost effectiveness, but also limits its potential to deliver on development claims more broadly, highlighting the high (geo)economic opportunity costs.

6.6 Conclusion: Characteristics of innovative development finance

Following the money through the case studies reveals that IDF projects only partially achieve their core development claims (see Figure 29 for a summary of key findings). There is a remarkable degree of similarity across the three cases. First, private finance resources are at the heart of the initiatives' financial model, but there is no additionality, no mobilising of additional private resources for development. Instead of leveraging private finance, resources are peeled off by private actors who receive more than they contribute. The financial models are fundamentally reliant on public finance. For example, IFFIm's key objective is to leverage private finance to frontload funding for Gavi through capital markets. Following the money found substantial frontloading in the first few years, however, this leveraging is temporary. In the longer-term, there is no aid additionality as a significant proportion of resources are peeled off by bondholders and intermediaries as money circulates through the case study, the opposite of mobilising. Instead, the financial model is fundamentally paid for by publicly financed donor government aid.

Second, the IDF initiatives manage some risk in support of development, however, the risk management is not comprehensive. In contrast, a series of prudent financial risk management measures operate to protect financial actors. Furthermore, the projects' financial models actually add risks to the global financial system. CCRIF's main goal is to manage post-disaster funding risks for its member governments. Follow the money analysis revealed it partially

addressed this financial vulnerability. CCRIF's financial model provides rapid liquidity in the aftermath of catastrophic disasters; however, it neither removed the uncertainty of receiving that funding nor provided cash at a scale to cover need given the damage caused. Additionally, the initiative creates additional risks at a financial system level through its risk transfer programme of reinsurance and catastrophe swaps and bonds, which are offered to investors seeking speculative gains.

Third, all three cases support the expansion of financial markets, but this is limited to increasing the scale of existing markets rather than materially creating new ones, and participants are largely limited to established investors and other financial actors. Furthermore, the financial markets are spatially uneven, concentrated in financial centres in the Global North. TCX's core aim is to develop and deepen local currency capital markets. Through its derivative transactions with its shareholders, offsetting programme with investors, and local currency bond programme, TCX has undoubtedly increased the volume of transactions related to local currencies taking place in currency markets. However, the vast majority of these transactions are structured to take place offshore with settlements often made in hard currency. This severely limits any potential benefits of supporting markets for domestic end borrowers looking for local currency financing.

Finally, hiding in plain sight is an important final benefit, the opportunity for significant private profit. Despite claims to cost effectiveness, IDF's financial models are expensive. As money circulates through the cases, it is distributed to private financial actors through a range of mechanisms. Following the money shows that IFFIm distributes significant resources to bondholders in interest payments and to professional services firms in fees; CCRIF pays significant reinsurance premiums to reinsurers, payments on insurance-linked securities to investors, and fees to a range of professional service providers; and TCX offers the opportunity to receive interest and speculative gains on currency for investors and fees for professional services companies. As shareholders, publicly backed financial institutions also receive payments from TCX through equity gains and dividends. Analytically, follow the money reveals two forms of profit. First, the large scale of visible flows of money which form part of IDF's 'win-win' promise to investors and other financial market actors, and second, the more hidden flows to financial intermediaries.

What emerges from this analysis is an alternative set of generalisable characteristics of IDF: involvement of private finance, fundamentally publicly funded, no aid additionality, limited risk management for development, prudent risk management for financial actors, additional financial risks, expansion of existing financial markets, transactions with established financial

market participants, spatially uneven, and expensive, with significant private profit opportunities for investors and other financial market actors as well as intermediaries. Building on Chapter 5 which situates IDF as part of the financialisation of development, this chapter's analysis also contributes to understanding the processes, logics, and instruments in the financialisation of development. Drawing on a mechanism-oriented concept of financialisation (see Chapter 2), these characteristics can be thought of as some of the economic consequences of the financialisation of development in IDF.

Figure 29. Key findings from examining innovative development finance's claims

Chapter 6				
	Leverage private finance	Manage risk	Create markets	Private profit
IFFim	 Front-loading through capital markets	 Funding predictability	 Social vaccine bonds	 Interest and fees
CCRIF	 Risk transfer to reinsurance and capital markets	 Post-disaster financial vulnerability	 Catastrophe (re)insurance, swaps and bonds	 Reinsurance premium, interest and fees
TCX	 Hedging, trading and liquidity management through capital markets	 Currency and interest rate mismatch	 Local currency capital markets	 Interest, speculative gains on currency and fees
Conclusions	- Private financial resources involved - No additionality - Fundamentally funded by public finance	- Limited, not comprehensive, risk management - Oriented towards financial market actors - Additional financial system risks	- Financial market expansion, rather than creation, with existing financial market participants - Spatially uneven, concentrated in financial centres in Global North	- Significant opportunities for private profit - Resources distributed to intermediaries - Resources distributed through a range of mechanisms (including interest, fees, premiums, speculative returns)
Performance against claim:  Poor  Moderate  Good  Very good				

Chapter 7. The politics of innovative development finance: Rendering financial and the rule of financial experts

7.1 Introduction

This chapter engages politically with innovative development finance, shifting focus from the more technical engagement in Chapter 6. The analysis builds on foundational ideas of rendering technical (Li, 2007), the anti-politics machine (Ferguson, 1994), and the rule of experts (Mitchell, 2002) discussed in the first section. The second and third sections present two distinct areas of analysis and arguments. The second section presents my analysis of the techno-financial politics of IDF, specifically the problematisation, solution, and political effects in the case studies⁶⁷. In addition to many of the similarities and continuities with rendering technical and de-politicising effects identified in previous work on development projects (Li, 2007; Ferguson, 1994), there is an additional explicitly financial dimension to explore the politics of IDF. Drawing on Li (2007) in particular, I suggest the idea of ‘rendering financial?’ as a way of thinking through the politics of IDF as financialised development. The third section analyses knowledge and power in IDF initiatives. Here, again, there are continuities with previous work on the role of experts. However, there has been a shift in who the experts are and what the expertise is. I analyse the rule of *financial* experts in IDF, or financialised development.

7.2 Literature review: Rendering technical, anti-politics, and the rule of experts

This section examines foundational texts on the politics of international development, specifically Ferguson’s ‘The anti-politics machine’ (1994), Li’s ‘The will to improve’ (2007), and Mitchell’s ‘Rule of experts’ (2002). Although well-established, many of their ideas remain influential and continue to be relevant to analysing the politics of IDF. While some of the authors’ insights have a compelling simplicity which can be summarised in a single sentence – for example, rendering technical simultaneously renders apolitical (Li, 2007) – there is more depth behind the arguments which merits close scholarly engagement, together with their theoretical grounding in Foucault’s work. Some of the themes in the texts are overlapping and many of the arguments are complementary, but they do not always necessarily fit neatly

⁶⁷ Some of the results on IFFIm presented in these sections, specifically the story of its origins and analysis of the role of financial experts, are also in a published paper in *Economic Geography* entitled “Innovative development finance? Vaccine bonds and the hidden costs of financialisation”.

together. In this section, I focus on pulling out the key ideas which later form the building blocks for my analysis of the case studies, and the chapter's overall arguments on the politics of IDF.

Empirically, there is a long-standing finding that many development projects 'fail' to achieve their own objectives. In Lesotho, between 1975 and 1984, Ferguson (1994) finds the rural development projects failed to increase agricultural production. For Ferguson, this is unsurprising as the framing of Lesotho in the World Bank's problematic as a "traditional subsistence peasant society", "virtually untouched by modern economic development" is "not only incorrect but outlandish" (1994: 28). In Li's (2007) account of development and conservation interventions in Central Sulawesi in Indonesia, they fail to reduce poverty or empower people. Li (2007) shows the inevitable gap between what interventions attempt and what they achieve, and argues there are profound limits to what the 'will to improve' has achieved in both its colonial and neoliberal iterations, failing to deliver on its promises to improve the world for significant numbers of people. As will be discussed, Mitchell's (2002) account also documents failure (and this trend continues in more recent research, see for example Mitchell and Sparke, 2016; Dempsey and Suarez, 2016; Johnson, 2022). These interventions, then, neither significantly reduce poverty nor create some form of economic transformation, failing to achieve either 'big D' Development or 'little d' development.

It is perhaps no surprise that Chapter 6 confirms IDF projects are no exception to the norm of failure – the projects do not clearly reduce poverty or successfully meet their development claims to leverage private finance, manage risk, or create markets. However, what interventions fail to do is not the full story. As Li notes, the dismal outcome of a project "was not just a dull thud as another failed development project bit the dust" (2007: 136), there were important effects and, more generally, interventions deeply shape lives. Although they fail to achieve their own objectives – outcomes do not match plans, interventions nevertheless have consistent effects (Ferguson, 1994). It is to these real, political effects that I turn after addressing the theoretical foundations in Foucault's work.

7.2.1 Theoretical foundation

A first central theoretical foundation is Foucault's government and governmentality. Li situates the will to improve in the field of power of government, where "government is the attempt to shape human conduct by calculated means" (Li, 2007: 5), or 'the conduct of conduct' (Foucault in Li, 2007; see also Foucault, 1991). The concern of government is wider populations, with the purpose to improve their welfare and condition, achieved by shaping behaviours,

aspirations, and beliefs. Government operates by setting conditions “artificially so arranging things so that people, following only their own self-interest, will do as they ought” (Li, 2007: 5; citing Bentham in Scott, 1995). Foucault’s will to govern is expansive. It includes, among other processes, wealth, resources, climate, customs, ways of thinking, and epidemics (Foucault, 1991). Governmental rationality, a distinct way of thinking about government, supports the operations of government (Foucault, 1991; see also Foucault, 1980). Governmentality, the concept that plans and policies can directly and straightforwardly shape society and government bureaucracies, is a principle of the development problematic (Ferguson, 1994). Li describes governmental rationality as the ‘right manner’ of arranging things to achieve a range of ‘finalities’ through many different ‘tactics’ (2007; see also Foucault, 1991). Calculation is critical as the ‘right manner’, specific ‘finalities’, and chosen ‘tactics’ need to be defined (Foucault, 1984; in Li, 2007). For this calculation and, therefore, for designing interventions, the processes to be governed must be rendered technical (Li, 2007), a practice discussed further below.

A second important theoretical foundation is that discourse and ideas have important effects. Foucault (2002 [1969], 2005 [1966]) argues discourse is a social practice which has real effects. In this approach, discourses are systems of utterances and statements that actively shape the world, rather than just represent it (Foucault, 2002 [1969]). In his study, Ferguson (1994) argues the development institutions created their own form of discourse which both constructed Lesotho as a particular object of knowledge and generated a structure of knowledge around that object. This discourse created an imagination of Lesotho for development officials which was far from the reality, instead creating an object – poverty – to be addressed (Ferguson, 1994). This discursive regime, in turn, ordered the ideas of development institutions and formed the basis for planning and organising interventions (Ferguson, 1994). Linking to the concept of governmental rationality, this system structures the position of development programmers (Li, 2007). Calculated development interventions draw on and are structured by a heterogenous governmental assemblage of knowledge, ways of thinking, and calculation techniques (Li, 2007; drawing on Rose, 1999, and Foucault, 1980), and pull together from an existing series of interventions (Li, 2007; drawing on Scott, 1998, and Li, 2005).

A third theoretical foundation is the approach to the complex relationship between a development project’s plans or intentions, its outcomes or effects, and its political or strategic intelligibility. Ferguson grounds his work in Foucault’s decentred conception of power (Foucault, 2020 [1975], 2020 [1976], 1980). In this approach, planned social interventions may have unintended outcomes which, even so, come together into powerful constellations of

control – one famous example is Foucault’s analysis of the prison (2020 [1975]) and another is Ferguson’s anti-politics machine (1994). While interventions may ‘fail’ and outcomes may be unintended, they are nonetheless more effective because there is no subject (authorless ‘strategies’ for Foucault, 2020 [1975]). Importantly, these constellations turn out in the end to have some logic or strategic intelligibility (Foucault, 2020 [1975]). In Foucault’s analysis (2020 [1975]), prisons have failed to reform criminals and eliminate crime for a century and a half, but the prison still exists as it nevertheless successfully produces delinquents as a pathologized subject as part of a system of social control. Theoretically, this approach connects a development intervention’s outcomes to power without assigning a central role to any particular powerful actor or entity. Therefore, the political intelligibility of a project is understood not through the intentions or interests of a subject, but rather structural production (Ferguson, 1994). In other words, “intentional plans are always important, but never in quite the way the planners imagined” (Ferguson, 1994: 26). This means the outcomes of failed development projects are not just side effects but can be understood as ‘instrumental elements’ in a constellation – Ferguson’s anti-politics machine (1994).

7.2.2 Rendering technical and anti-politics

For Li (2007), two practices are needed to design specific programmes. First, problematisation – identifying deficiencies that need to be fixed; and second, rendering technical. Li adapts the term ‘rendering technical’ from Rose who explains it as making something “amenable to a technique” (1999: 79)⁶⁸. Li describes rendering technical as a set of practices to make an arena of intervention technical, by constructing a boundary around a knowable, improvable, technical domain. In other words, to “render a set of processes technical and improvable an arena of intervention must be bounded, mapped, characterized, and documented; the relevant forces and relations must be identified; and a narrative must be devised connecting the proposed intervention to the problem it will solve” (Li, 2007: 126). Similarly, Ferguson (1994) finds key issues in development, including poverty, are ‘reposed’ as technical problems amenable to technical interventions. Rendering technical is similar to Mitchell’s (2002) concept of ‘enframing’ as a practice that creates the appearance of an exterior object which can be managed (discussed further below).

⁶⁸ In full, for Rose, rendering technical is representing “the domain to be governed as an intelligible field with specifiable limits and particular characteristics ... defining boundaries, rendering that within them visible, assembling information about that which is included and devising techniques to mobilize the forces and entities thus revealed” (Rose, 1999; in Li, 2007: 7).

Complex issues that are rendered technical are simultaneously rendered non-political (Li, 2007). In their problematisation and solutions, development experts exclude the broader structure of political and economic relations and processes from the technical domain (Li, 2007). This comes at the expense of addressing the root causes of poverty and the structural processes that cause inequality (Li, 2007). Here, Li builds on ideas from Ferguson's anti-politics machine which is "insistently reposing political questions of land, resources, jobs, or wages as technical 'problems' responsive to the technical 'development' intervention" (Ferguson, 1994: 171). Development experts, Li (2007) argues, are taught to understand and structure problems in technical terms, and this ability underpins their claim to expertise. Plans generate a picture ready for improvement where disruptive issues, in Li's study landlessness, are positioned as isolated facts rather than being placed in the context of ongoing political-economic processes (Li, 2007). Of course, despite the appearance of a neutral technical solution, development interventions may involve sensitive political processes (Ferguson, 1994; Li, 2007). The practice of rendering technical is critical because excluding political issues influences and limits what development interventions set out to achieve, the design of solutions, and their outcomes.

Screening out political issues results in gaps and contradictions, making the failure of technical interventions unsurprising (Li, 2007). In Li's account of an ADB intervention's plan to improve livelihoods largely through agricultural development, the "results expected from these modest technical interventions were nothing short of spectacular" (2007: 128). Some elements of the plan's analysis were illogical. For example, Li shows the affordable credit plan excluded its intended targets and charged market interest rates, a rate at which credit was already available. The project also distributed tools, fertiliser, and pesticide of no use to those without land. From a conservation perspective, the use of agrochemicals to increase agricultural productivity 'sat awkwardly' with ecological objectives. Furthermore, the calculation of costs and benefits to villagers often had no empirical basis or the opportunity costs were severely underestimated. Li (2007) finds that, across plans, technical interventions screened out political processes such as migration, landlessness and impoverishment, and practices such as corruption and villagers' challenge of park boundaries. Li notes many of the gaps and illogic in the plans appear obvious, so the question is why the interventions were nonetheless designed as they were.

Problematisation and rendering technical are closely linked, as the problem identified is closely related to, and even based on, the availability of a solution (Li, 2007). The construction of a boundary around and characterisation of an 'intelligible field' appropriate for intervention anticipates the interventions development experts have available (Li, 2007; building on

Ferguson, 1994). Only problems which are amenable to a technical solution are addressed (Li, 2007; Ferguson, 1994). Furthermore, experts already have certain solutions 'in the bag', and the local place is made to fit the analysis which requires these solutions (Ferguson, 1994). Li (2007) argues the problem and solution co-emerge within a 'governmental assemblage' where experts have particular diagnoses, recommendations, and techniques to offer. Interventions are, therefore, designed drawing from various elements of a broad assemblage of technique and knowledge available at the time (Li, 2007). The result is the available solutions strongly influence problematisation.

Ferguson's (1994) seminal work argues the development apparatus functions as an 'anti-politics machine' with two important political side effects ('instrument effects'). First, an institutional effect is the expansion of state power, through the establishment of a local governing machinery. Second, an ideological effect is to depoliticise poverty and the state. The 'anti-politics machine' is "depoliticizing everything it touches, everywhere whisking political realities out of sight, all the while performing, almost unnoticed, its own pre-eminently political operation of expanding bureaucratic state power" (Ferguson, 1994: 13). In Ferguson's study, intentional plans interacted with social structures and unpredictable events resulting in unintended outcomes. So, while these side effects may not be intended by the planners, they are nevertheless intelligible as instruments of an 'unplotted strategy' in an exercise of power, where the resultant constellation or system has its own logical coherence – this is the anti-politics machine (Ferguson, 1994). The 'machine' includes a conceptual and discursive system as well as social institutions and processes (Ferguson, 1994).

In addition to taking the politics out of development, the development machine excludes the state's political character from analysis (Ferguson, 1994; Li, 2007). Drawing on the theoretical foundation in Foucault outlined above, government can be understood as an exercise of power. However, Ferguson (1994) argues the development machine adopts a depoliticised conception of the state. In this argument, the development problematic views the state as a neutral instrument to implement plans, committed to improvement, whereby the role of government is to generate economic growth and provide services (Ferguson, 1994; Li, 2007). Seeing the state apparatus as a rational, legal bureaucracy means it needs only an apolitical transfer of technology or technical solution to correct its flaws (Li, 2007). Of course, the state and development interventions are deeply political. Empirically then, when plans meet the political realities of a state bureaucracy, or if interventions naively follow public statements, the outcome can be messy failure (Ferguson, 1994; Li, 2007). As Ferguson describes vividly in his account of a "fatalistic drama", the project "quickly found itself in the position not of a craftsman approaching his raw materials, but more like that of a bread crumb thrown into an

ants' nest. Pushed and pulled in all directions, project staff found themselves frustrated and abused by the very 'Government' they imagined they were trying to 'help'." (1994: 147). Ferguson (1994) identifies a fundamental contradiction – development agencies are meant to effect social change without getting involved in politics, but any interventions to bring about social change have political effects.

The development apparatus' ability to contain critique is another element of the anti-politics machine (Li, 2007). Development interventions rarely live up to their promise, and yet, in Li's (2007) framing, the will to improve continues. Promised results are forever pushed back into the future when the perfect solution will be designed and implemented (Li, 2007). Drawing on Li's term, Johnson (2021a) argues the 'will to insure' persists in the case of index insurance in Africa because of expert belief in its value, if only the right solution can be found. This effect supports the development apparatus' ongoing existence, sustains the division between trustees and those subject to interventions, and maintains the focus of critique on the technical deficiencies of interventions (Li, 2007). Meanwhile, wider political and social issues, including accumulation and poverty, remain out of scope (Li, 2007).

'Aidnography' has revealed the nuanced, complex political processes behind development interventions, showing how interventions maintain legitimacy despite failing to deliver on their promises (see for example Lewis and Mosse, 2006; Mosse, 2004, 2005; Bending and Rosendo, 2006). Interventions draw on 'mobilising metaphors' to gain political legitimacy, for example good governance, ownership, or participation; these may, in turn, be used strategically (Mosse, 1994, 2004; Lewis and Mosse, 2006). Anti-political and vague policy discourse is "required to conceal ideological differences, to allow compromise and the enrolment of different interests, to build coalitions, to distribute agency and to multiply criteria of success within project systems" (Mosse, 2004: 663). Mosse shows how these populist discourses also create a separation between development interventions and political economy, and from the local or vernacular, which leads to "ignorance of project effects" (2005, 238). Political legitimacy, then, is gained by framing development interventions as sitting outside of politics (Bebbington, 2005). Anti-politics is a tactic for poverty to be separated from political issues such as distribution and inequality, and to frame projects as the way to reduce poverty not political processes (Bebbington, 2005).

Büscher (2010) has emphasised anti-politics as a political strategy in development (and conservation), linking the concept to inequality and the broader neoliberal political economy (see also Bracking, 2015a). Büscher (2010) argues aidnography should not detract from the 'bigger picture' of structural and political issues. In taking a nuanced actor perspective,

Büscher (2010) argues it has moved the focus away from how interventions are regulated through the neoliberal political economy and how this supports and hides global inequality, and does not characterise the multi-directionality of interventions in political terms. Building on Ferguson's technocratic concept where depoliticisation is an essential political strategy, Büscher (2010) operationalises anti-politics in a more political way, which recognises that development interventions operate within a neoliberal framework and often help support the neoliberal political economy. Extending its conceptualisation enables a better multi-directional understanding of the politics in anti-politics (Büscher, 2010). In particular, Büscher (2010) argues for more attention to be given to structural inequality in political terms, which is unaddressed by development interventions in the context of neoliberalism.

7.2.3 The rule of experts

Experts and expertise play a central role in the politics of development, which could also be characterised as techno-politics or a politics of techno-science (Mitchell, 2002). In 'The rule of experts', for example, there are scientists and public hygienists fighting epidemic disease, engineers building the Aswan Dam, and economists and development practitioners planning financial aid programmes and economic restructuring (Mitchell, 2002). Experts devised technical interventions, applying modern scientific and social scientific expertise to overcome nature, fix societal problems, and transform agriculture and the economy (Mitchell, 2002). Mitchell (2002) argues experts have a particular approach to interventions which works to create an exterior object. Mitchell (1991) identifies 'enframing' as a technique of order, building on Foucault's (1980, 2020 [1975]) ideas on disciplinary mechanisms and strategies of control. For Mitchell (1991), enframing is a set of techniques and processes which create the appearance of an exterior object which is able to be managed. Enframing creates the appearance of a framework and what is enframed, draws a line between the exterior frame and the enframed interior, and creates a place from which an individual can observe (Mitchell, 1991).

Mitchell (2002) emphasises the role of experts in translating political issues into technical problems, complementing Li's work. Mitchell's (2002) account shows how poverty, inequality, and landlessness are translated into technical problems, to be solved through technical solutions, paving the way for experts to devise interventions. Moreover, experts can focus on one simple technical issue instead of all the relevant complex and interconnected social and political forces (Mitchell, 2002). In a memorable example, Mitchell explains how the *Anopheles gambiae*, a mosquito, enters and spreads across rural Egypt in 1942. The mosquito was

identified as a technical public health problem causing the spread of malaria. For experts, Mitchell argues, problems are technical and require technical solutions. DDT⁶⁹ chemical spraying interventions were designed and implemented to tackle the epidemic. However, the interventions failed; they assumed techniques could be separated from politics. Experts focused on fighting the mosquito and its larvae, independent of interconnected social or natural forces, including a shortage of quinine because of WWII, a hydraulic dam and increased sugarcane production, and increases in transportation. In addition, the DDT was made from ethyl alcohol which was produced by the industry which was also using the sugarcane with the sap that helped mosquitoes breed. So, the technical intervention, in some ways, even aided the spread of the mosquito.

Experts' approach can ignore failure, playing an important role in the continuing failure of development projects and their persistence. Like Li's (2007) argument that the boundaries drawn around problems hides their context, history, and politics, Mitchell's (2002) argument shows how experts place themselves outside the object of development they are analysing to make a diagnosis and recommendations, despite their actions to intervene. The result can be failure as technical interventions separate out connected forces, ignore problems created by previous expert interventions, and ignore experts' own role in producing social outcomes (Mitchell, 2002). However, 'enframing' means these failures can be overlooked. In Mitchell's (2002) account, technical interventions were often responses to problems created by earlier techno-scientific programmes. In the mosquito example, experts' diagnosis ignored other technical interventions which supported the spread of malaria, such as railways, canals, dams, and cash crops. In turn, the DDT intervention to fight mosquitoes caused more problems to be tackled with more technical interventions. Each techno-fix creates different problems for other experts to solve. However, these solutions are never sufficient, since addressing symptoms technically does not address the fundamentally political problems.

Experts are powerful actors in development, who can play a role in de-politicising issues. Scientific and social scientific expertise and the technicalisation of development problems support experts' exercise of power (Mitchell, 2002). It is worth noting that there may be disagreement between experts around 'scientific' issues, such as the evidence or the nature of expertise, or around 'political' issues, including inequality of power or parties' interests (Barry, 2013). Nonetheless, Li (2007) calls for the claim to expertise in directing other people's lives to be examined because it is a claim to power. Rendering technical creates a distinction between trustees who can diagnose deficiencies in others, and those subject to expert

⁶⁹ Dichlorodiphenyltrichloroethane.

direction whose conduct needs directing (Li, 2007). The practice of government supports this separation, limiting the development apparatus' ability to engage with intended beneficiaries as political actors (Li, 2007). Furthermore, in making problems technical, experts can depoliticise the economy as an object to be developed (Mitchell, 2002). More recently, similar findings have emerged on the anti-political consequences of corporate scientific expertise (Barry, 2013). Linking back to the notion of taking politics out, Ferguson (1994) notes that planners were 'blind' to the political nature of issues, continuing to see interventions as apolitical, and adapting plans until the 'right one' could be found. Experts then, must be a part of the political analysis, even though, as noted earlier, their interventions may interact with other forces to produce unintended or even unexpected results.

Mitchell, Ferguson, and Li's work de-emphasises intentionality and hidden agendas, in line with their theoretical grounding. For Ferguson (1994), interests and intentions are part of the development system, but not its driving force. Similarly, Mitchell (2002) argues a range of interlinked forces shape social outcomes, such as technology and science, capitalism and imperial power, or war and disease, not just human agency which is never fully in control. Ferguson (1994) contends that it ends up working out that development projects have unintended side effects which have political uses, and it is because of this strategic utility that 'failed' development projects are supported and repeated. While the discourse of planning and knowledge is important, it is only part of a broader 'machine' that just happens to retrospectively have strategic coherence (Ferguson, 1994). This 'machine' can be thought of as the process through which structural production happens. Relatedly, Li (2007) takes the will to improve seriously and highlights the role of benevolent intentions. Li cautions against understanding development as a tactic or narrowing the analysis of interventions to hidden motives of profit or domination, noting that trustees are unable to simply promote the narrow interests of elites. It is worth noting that this conclusion sits in the context of Li's (2007) study where many interventions have no expectation or possibility of delivering any profit. This stands in contrast to IDF projects which explicitly aim to deliver profit. Here, what is key to pull out is that development interventions have many objectives which need to be taken seriously, and while there may be tensions or contradictions between them, expert intentions or elite interests do not rule the show seamlessly.

7.2.4 Political challenge: The emperor has no clothes!

Rendering technical is an ongoing process, which often succeeds at depoliticising poverty, but this is not necessarily a foregone conclusion. There could be a political challenge to an anti-

politics machine, or in Bending and Rosendo's (2006) analogy, a moment when someone says, 'the emperor has no clothes!'. There are differences in the position of the three key scholars on the finality of the achievement of depoliticization, although they are also writing in very different contexts. At one end, for Mitchell, experts rule. For the most part, experts' discourse succeeds at framing political issues as technical problems to be solved through technical interventions (Mitchell, 2002). Experts continue to design interventions, even following failure, with no challenge to their power or expertise (Mitchell, 2002). In the middle, Ferguson (1994) concludes development interventions 'may' contain political challenge. In a comparison of projects across Lesotho and South Africa, depoliticization of poverty is inconsistently effective, with strong political debate emerging in the latter that experts could not avoid (Ferguson, 1994). At the other end, Li (2007) insists rendering technical is not a secure accomplishment, but rather a project. Political issues, which may be contentious, that are excluded from experts' problematisation and technical solutions, do not simply disappear (Li, 2007). In Li's account in Indonesia, political challenges did emerge including mobilisation through occupying land, mass demonstrations demanding a response to landlessness, and NGO critique of the regime's claim to techno-scientific expertise. Li (2007) explicitly connects the critique and politicisation of the park's border population to the failure of conservation and development interventions, overlapping with other political processes shaping villagers' lives. Li frames the political challenge as an important consequence, albeit unintended, of the development interventions. Development interventions then, may lead to political challenge, which, in turn, shapes those calculated interventions (Li, 2007). In summary, all three scholars agree expert discourses seek closure excluding political issues – through rendering technical for Li, reposing political questions as technical problems for Ferguson, or enframing for Mitchell. Furthermore, evidence suggests there can be moments of political challenge which may not be contained, although this has not materialised with IDF (discussed further in the chapter's concluding reflection).

7.3 Rendering financial? The techno-financial politics of innovative development finance

This section analyses the politics of IDF through the three case studies, focusing on the problem, the solution, and political consequences. The first part begins with an analysis of the process of problematisation, drawing in particular on Li's (2007) work to examine how a problem is diagnosed, an arena of intervention is identified, and a domain bounded. The second part analyses the interventions as technical financial solutions, drawing in particular on Li's (2007) concept of rendering technical. The third part identifies a range of gaps and

contradictions. The final part concludes this section, bringing together the empirical evidence to propose the concept of ‘rendering financial’ and argue its political effects are to both de-politicise and financialise.

7.3.1 Problematisation: Bounding a financial domain

Here, I examine the process of problematisation in IDF. Empirical analysis reveals the bounding process delimits a financial domain, similar to Li’s (2007) technical domain. This boundary outlines the limits of responsibility and the changes an intervention intends to make. In all three case studies, a financial problem is identified, and a genuine development challenge is translated into a financial problem amenable to a financial solution. Moreover, within the bounded financial domain, the causes of the diagnosed problem are also financial. Throughout the problematisation process, political issues are excluded. The consequence is de-politicising the framing of poverty and its causes. I begin with an outline of the story of IFFIm’s origins, which reveals interesting insights on the problematisation process, before turning to analysis of CCRIF and TCX.

The story of IFFIm begins in November 2001. In a speech to the Federal Reserve Bank in New York on reform of the international financial system, Gordon Brown, then the UK Chancellor of the Exchequer, called for a substantial increase in development assistance to address poverty. This call came in the wake of the adoption of the UN MDGs in 2000, which promoted poverty eradication and represented a significant shift in international development agendas, although not a rejection of market-based approaches (Fukuda-Parr and Hulme, 2009; Chapter 2). In his speech, Brown argued the world’s richest countries must make substantial additional resource contributions to bridge the ‘investment gap’ which the poorest countries face, suggesting governments could “pre-commit development resources” and “capital markets could be used to leverage up these contributions” (Brown in Willetts, 2001). Enter Goldman Sachs, which would serve as IFFIm’s financial advisor on a pro bono basis (Goldman Sachs, 2020; IFFIm, 2006a). In his behind-the-scenes account of the formation of IFFIm, Christopher Egerton-Warburton, then Goldman Sachs’ Head of Sovereign Supranational and Agency Funding, and who later served on IFFIm’s Board of Directors between 2013 and 2018, recalls:

“That speech was the founding concept of IFFIm. [...] We were asked to meet Gordon Brown’s right-hand executive [...] She hands us Brown’s speech and basically said, ‘can you solve this?’ – meaning, figure out frontloading. That meant finding or creating a

mechanism to bring forward the value of long-term government pledges, with cash flow only hitting the budget the year pledge payments are made. We created a financial mechanism for this Innovative Finance concept.” (IFFIm, 2019b)

In the words of Alan Gillespie, the former Chairman of IFFIm, “Goldman Sachs picked up the ball and ran with it and their involvement led to a more detailed proposal, which was put to the UK Treasury” (McCormick⁷⁰, 2007: 79).

On 22 January 2003, speaking at Chatham House, Gordon Brown announced the proposal for an International Finance Facility (IFF) to “bridge the development financing gap between the resources that have already been pledged and the additional funds that are now recognised as urgently necessary to meet the Millennium Development Goals” (Brown, 2016). The facility sought to ‘leverage in’ money from international capital markets to double development aid in the years to 2015, from \$50 billion to \$100 billion a year (Brown, 2016). It wasn’t until later that the IFF idea found a purpose for the funds: immunisation, which was “amenable to immediate and rapid build up” (Gillespie in McCormick, 2007: 80). Egerton-Warburton tells the story:

“We presented the IFF idea to Alan Greenspan. He was in London at the time to be knighted. He heard us out and basically said, ‘If Goldman says this works, then I am sure it would work, but what would you spend the money on? You have to find something this can be attached to that’s completely bulletproof.’ Soon after, Bill Gates came to Gordon Brown’s office and said he wanted long-term money for Gavi—and a lightbulb goes off. Then I get a phone call from Alice Albright, former CFO of Gavi, saying, ‘I understand that you have a scheme that we need to work on’ This crazy series of events is how IFFIm came to be.” (IFFIm, 2019b)

In 2004, Linklaters were appointed to “do the same kind of thing as Goldman was doing on the financial side”, in the words of Jim Rice, one of the principal legal architects of the transaction structure (cited in McCormick, 2007: 80). Thus, the concept became reality as the design of IFFIm’s structure was worked out by Goldman Sachs, the UK Government (the Treasury and DfID⁷¹), Gavi, the World Bank, and Linklaters. As Kenneth Lay, chair of IFFIm’s board since 2020 and former World Bank treasurer, highlighted in a recent interview, “credit for IFFIm goes 100% to Gordon Brown, Christopher Egerton-Warburton, Alice Albright and

⁷⁰ Interview with Gillespie and Rice reported in Law and Financial Markets Review journal.

⁷¹ Department for International Development (UK).

Susan McAdams [of the World Bank] who worked with Egerton-Warburton to develop the IFFIm framework” (IFFIm, 2021). Later in 2004, the UK and France committed to launch a pilot to apply the IFF principles to immunisation. By September 2005, the founding European donors – the UK, France, Italy, Spain, Sweden, and Norway – had committed nearly \$4 billion to IFFIm announcing they would immunise an additional 500 million children and prevent 10 million deaths. In early October 2006, IFFIm, the World Bank (as treasury manager), Goldman Sachs (now in the commercial role of joint lead manager and arranger of the debt programme) and Deutsche Bank (as joint lead manager) set off on a roadshow to meet potential investors in five European cities (IFFIm, 2006b). One month later, on 14 November 2006, IFFIm issued its inaugural \$1 billion vaccine bond.

The problematisation process in IFFIm bounds a financial domain, and identifies a financial problem amenable to a financial solution. The story of its origins reveals how the limits of responsibility include financial resources in support of the MDGs, and later immunisation. Financial matters are made visible, and the changes intended are financial interventions, specifically to frontload development resources. In other words, the bounding of the problem is drawn around a financial domain. Within this domain, the UK’s proposal diagnosed the problem of global poverty as a temporal finance or investment ‘gap’ which had to be bridged. Later in the story, access to immunisation is also translated into a financial problem. There is evidence that the identification of the problem in IFFIm is heavily driven by the availability of a solution (Li, 2007). The problematisation process does not start with access to immunisation or vaccine distribution, or even funding for Gavi. Instead, at the beginning, there are the financial concepts of pre-committing resources, leveraging capital markets, and frontloading. These solutions are available to planners from the start and shape the design of IFFIm. However, there are myriad other ways a ‘problem’ of insufficient resources to address either poverty or immunisation could have been framed, with a range of accompanying solutions. Instead, a financial domain is bounded, a financial problem is identified – the investment gap, which is amenable to a financial solution – ‘pre-committing resources’ or ‘leveraging up contributions’.

Political issues do not appear in IFFIm’s problematisation process, contributing to the depoliticisation of the identified problem, the intervention, and the framing of poverty (see also Rosenman, 2019a). In the story, lack of investment and a financial ‘gap’ are framed as the causes of poverty. Political issues are neither discussed, nor included within the bounded financial domain of intervention. In relation to global poverty, political issues might include inequality and resource redistribution, while for immunisation they might be vaccine pricing,

intellectual property rights and structural differences in gendered access. However, these are excluded.

As with IFFIm, the process of problematisation in CCRIF delimits a financial domain of intervention. Its mission, as set out in the first annual report, is “focused on assisting *financial recovery* after a catastrophic natural disaster” (CCRIF Annual Report 2007-2008: 2, emphasis added). CCRIF’s chairman writes that “Caribbean Governments made history by signalling their proactive stance towards *financial mitigation* from natural disasters” (CCRIF Annual Report 2007-2008: 5, emphasis added). Similarly, the facility supervisor identifies CCRIF’s aim to “mitigate the short-term *cash flow problems*” after disasters, “filling the *gap* between immediate response aid and long-term redevelopment” (CCRIF Annual Report 2007-2008: 7, emphasis added). The mission and aims are explicitly financial. The World Bank, in its operation review of CCRIF’s first season, underlines this point, stating the “facility’s main purpose is to provide a *financial solution* to the short-term liquidity needs of Caribbean governments in the aftermath of disasters with catastrophic proportions” (World Bank, 2008: vii, emphasis added). Here, the boundary delimits a financial domain for intervention – the problem is financial recovery and short-term cash flow, to be solved with a financial solution.

The identified problem and intervention are closely related to, and even partly driven by, the available financial solutions. Diagnosing a problem to fix and designing a solution are intimately linked (Li, 2007). The idea of a financial intervention based on (re)insurance to manage disaster risk has a long history, and these pre-existing ideas were available and influential in designing CCRIF. Specifically, two publications promoting catastrophe (re)insurance and pooled insurance solutions have been credited with providing CCRIF’s “intellectual underpinnings” (World Bank, 2012): the first published as early as 1996 by the World Bank, USAID⁷², and the Organisation of American States (OAS), entitled ‘Insurance, reinsurance and catastrophe protection in the Caribbean’ (Evans et al, 1996); and the second published in 2001 by the World Bank, entitled ‘Managing catastrophic disaster risks using alternative risk financing and pooled insurance structures’ (Pollner, 2001). The World Bank characterised these solutions to transfer financial risk through insurance or a joint reserve mechanism as an “essential element” and a “necessary tool” in disaster risk management (World Bank, 2012: 21). In this way, CCRIF’s intervention draws on available ‘in the bag’ concepts to manage disaster risk, or more specifically the financial problem of short-term liquidity. CCRIF’s excess rainfall product provides a concrete example of available financial solutions driving design. In the 2007/2008 season, member governments requested flood

⁷² US Agency for International Development.

coverage from CCRIF. In response, the World Bank recommended an excess rainfall insurance product instead. This change from the problem of floods to excess rainfall was driven by the solution. It was too difficult to create a parametric flood insurance product because there was insufficient historical data to support risk calculation models, the market cost would be too high, and human intervention can be a significant determinant of flooding (World Bank, 2008). Driven by the availability of parametric reinsurance products in insurance markets, the solution provides coverage for excess rainfall rather than flooding.

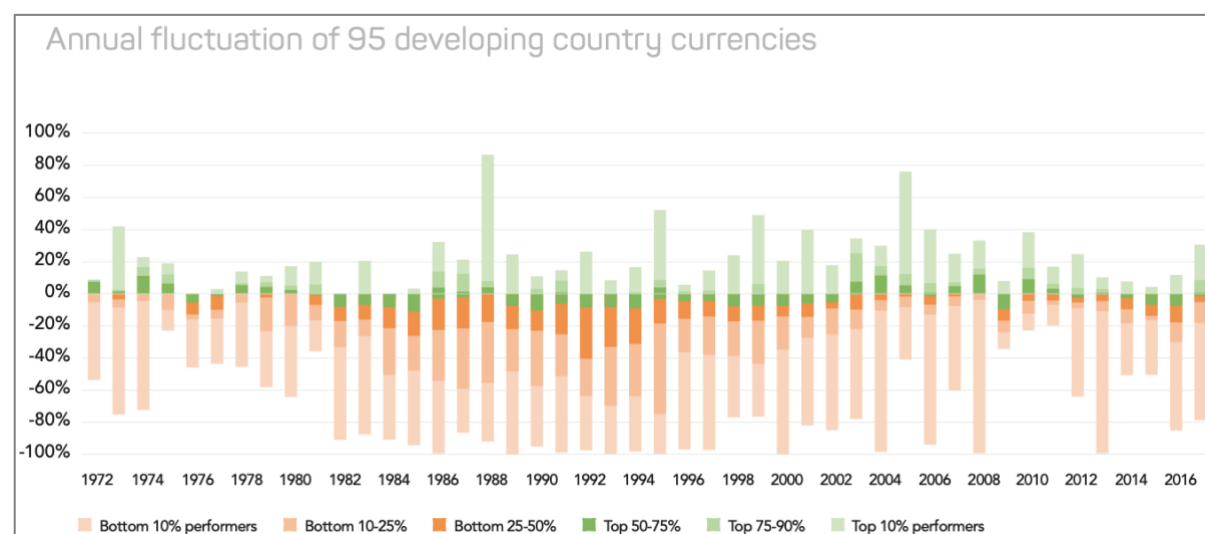
It is a political choice to bound a financial domain for intervention and diagnose a financial problem, and there are alternatives. The overarching aim of CCRIF's intervention is to manage disaster risk, with the specific diagnosed problem of short-term financial vulnerability post-disaster. This is sometimes defined even more narrowly, closely related to the available financial solution. For example, the multi-donor trust fund's objective was limited to increasing the affordability of the insurance solution (World Bank, 2015). As with IFFIm, these are political choices that have alternatives. The intervention could have aimed to manage non-financial risk, moving beyond government cash flow, taken a long-term view, or taken measures before a disaster strikes. For instance, an intervention could have targeted mitigating the effects of disasters or increasing preparedness by upgrading to earthquake resilient infrastructure, building defences to reduce tropical cyclone damage, or installing more weather monitoring stations. Equally, the problem could have been identified as crop damage or disruption to water supply. Interestingly, at CCRIF's donor pledging conference in 2007, the then president of the World Bank Group stated "there is only so much that we can do to prevent the loss of crops or water supplies, but we can help ease the burden of recovery" (World Bank, 2007b). While it might be the case that a catastrophic extreme event is likely to cause *some* damage, it is of course not the case that *nothing* further can be done to mitigate loss of crops or to build more resilient water supply infrastructure, especially for less severe weather events. Certainly, crops and water supply can be more directly addressed than by insuring a portion of government losses.

Political and structural issues are excluded from the financial domain. In disaster research, disaster risk is typically considered a product of exposure and vulnerability to a hazard. Importantly, vulnerability is determined by political, social and economic factors (Wisner, Blaikie and Cannon, 2004; Cutter, Mitchell and Scott, 2000). Extreme natural events are not disasters until vulnerable people are exposed (Blaikie, Wisner and Cannon, 2014). Accordingly, 'natural' disasters are not natural but politically and socially produced (Wisner, Blaikie and Cannon, 2004; Pelling, 2001; Kelman, 2019). The root causes of disaster risk are, therefore, political – underlying power relations, access to resources and services, inequality,

and political and economic systems (Wisner, Blaikie and Cannon, 2004). Despite this, vulnerability and its political determinants are almost entirely absent from CCRIF's problematisation process. Just one 'box' in the World Bank's 78 page report on the preparatory work on CCRIF's design mentions the connection between poverty and vulnerability (see World Bank, 2007a). Perversely, the only mention of vulnerability in the World Bank's first season operation review notes that some interviewees from the disaster management community were concerned governments would actually reduce their investments in vulnerability reduction because the insurance gave them a false sense of security (see World Bank, 2008). So not only are there non-financial alternatives to CCRIF's identified problem, but more broadly, it could have been diagnosed as vulnerability to hazards, which is driven by political and structural issues, including poverty. Instead, the diagnosis focuses exclusively on a financial domain, rendering the concept of vulnerability technical as one of the calculation 'modules' in CCRIF's catastrophe model (discussed further below). This excludes political issues and fails to identify root causes of vulnerability to hazards, and therefore root causes of disaster risk. Underlining this point, the prime minister of St Lucia, speaking at COP23, argued that while CCRIF is important, it only addresses the symptoms not the cause of the issue (CCRIF Annual Report 2017-2018).

As with IFFIm and CCRIF, TCX focuses on fixing a financial problem, the currency of lending, framed within a financial domain. TCX identifies "problems associated with the common practice of providing long-term (debt) financing denominated in hard currencies to emerging-market clients with local currency earnings" (TCX Annual Report 2007: 2). This financing is diagnosed as a problem because of currency mismatch which exposes end borrowers to currency volatility and adverse depreciation. In its ten-year evaluation report, TCX stresses the scale of the currency problem, presenting analysis of 95 currencies of low and middle-income countries since 1971, the end of the Bretton Woods system (see Figure 30). The message is clear. First, the scale of the depreciations is significant: "nearly two-thirds experienced at least one year with over 50% depreciation, while nearly all currencies had at least one year with over 20% depreciation" (TCX, 2017: 8). Second, the frequency of depreciations is significant: "one out of every eight developing currencies showed a drop of 20% or more in any given year, whilst one out of every twenty developing currencies dropped by more than 50% versus the dollar in any given year." (TCX, 2017: 8). This currency volatility has knock-on effects for the firms borrowing, and more broadly the economies they operate in. In line with this problematisation, the TCX intervention to address currency mismatch and de-risk borrowers has the development impact of strengthening the 'financial basis' or 'financial sustainability' of emerging markets clients (TCX Annual Report 2007, 2009).

Figure 30. TCX impact report currency analysis (Source: TCX, 2017)



At a higher level, TCX's problematisation process delimits a financial domain, connecting local currency finance to broader financial sector stability and growth. TCX's logic is that "the financial system as a driver for sustainable growth is an essential part of the development process of a country" (TCX, 2015: 3). In this framing, local currency lending is connected to the resilience of an economy to international economic crises, and therefore financial system or sector stability (see TCX, 2015; TCX, 2017). Addressing the problem, then, has an impact at three levels: strengthening the financial market, strengthening financial institutions, and strengthening end beneficiaries (TCX, 2015). For TCX, all the key dimensions of the domain of intervention are financial: the problem sits within the financial sector of lending, relates to the currency of loans, defines beneficiaries by their financial status as borrowers, aims to mitigate financial effects for those borrowers, and supports the development of the financial system, including financial markets and institutions.

Political issues and root causes are left out of the problematisation process which bounds a strictly financial domain of intervention. The diagnosed problem is limited to the currency of loans, exchange rate volatility, and financial market practices. The root cause is located in currency volatility. There is no discussion of, for example, why the development loans are needed in the first place, what the power relations embedded in the loans are, why local currencies are more volatile, why local currencies suffer large depreciations, whether financial sector growth is desirable, or even whether 'sustainable growth' is possible. Omitting political issues is particularly concerning for a currency intervention given the political and economic power connected to currencies, in particular the dollar, and currency hierarchies more broadly (see for example Fritz, Prates and de Paula, 2018; Keynes, 1930; Dafermos, Gabor and

Michell, 2022; see also the concept of world money in a Marxist tradition, Lapavitsas, 2013). These political questions require engaging with the broader historical and political context of development financing, the international financial system, and currencies.

Across the three cases, the problematisation process bounds a financial domain, akin to Li's (2007) technical domain. The financial domain is also technical, conceptually it could be considered a subset of a broader umbrella technical domain where financial means a particular form of technical. The problematisation process delimits an arena for intervention, making visible financial issues, where the limits of responsibility and the intended changes are financial. This financial domain includes financial resources, financial markets, financial actors, and financial root causes. Within this technical domain, a financial problem is diagnosed. Political issues, such as historical context or inequality in resources and power, are left outside the bounded financial domain. This has the effect of de-politicising the framing or cause of the problem, and poverty more broadly (Li, 2007; see also Rosenman, 2019a). Furthermore, the identified problem is amenable to a financial solution, and indeed there is evidence the identification of the problem is driven by the availability of a financial solution. It is the financial solution that I turn to analysing next.

7.3.2 Technical financial solutions

Chapter 5 argued IDF initiatives represent financial solutions to development challenges. This section focuses on analysing the politics of these financial solutions, drawing in particular on Li's (2007) concept of rendering technical. I argue the interventions are narrow, technical financial solutions. First, the solutions are *financial*. They are financialised interventions, driven by available market standard solutions, where many of the elements were already 'in the bag' (see Li, 2007; Ferguson, 1994). The financial domain is limited, resulting in narrow solutions which only partially or indirectly address the diagnosed problem. Second, the financial solutions are also *technical*. They are rendered technical and, as with the problematisation process, within the bounded financial domain political issues are left out. The consequence is interventions are framed as apolitical (see Li, 2007), which has important de-politicising effects. Furthermore, it exposes gaps and contradictions in the problem and solution, examined in the subsequent section.

IFFIm's intervention represents a technical financial solution to addressing poverty, where the design is driven by the availability of (market standard) financial instruments. In the narrative of IFFIm, the necessary solution to the particular 'problem' identified – the investment gap –

was presented as an innovative financing mechanism, specifically bonds as a ‘mechanism for frontloading government pledges’. The political issues of poverty and access to immunisation are translated into a technical intervention of ‘frontloading’ aid and ‘leveraging in’ money from capital markets. The intervention, the vaccine bond mechanism, is distinctly technical and financial. As noted earlier, solutions can already be ‘in the bag’ (Li, 2007; Ferguson, 1994). In this case, bonds are not the only viable solution to increasing funding. Indeed, over the course of the creation of the IFF proposal and then IFFIm, the technical solution was refined. Starting from a range of potential technical financial models for governments to (pre-)commit funding such as a trust fund, guarantees, or callable capital which could be levered up, the proposal narrowed down to bonds, whereby legally binding long-term government aid commitments would be leveraged through capital markets. As noted in Chapter 5, bonds have been a part of the development landscape for many decades and, from the perspective of capital markets the bonds were market standard transactions. The financial instruments were already available and, similarly, the ‘frontloading’ model is rooted in the more standard concept of borrowing (which connects to the challenge to IFFIm’s claim to be ‘innovative’ in Chapter 5).

The scope and scale of CCRIF’s solution is limited by the bounded financial domain, and available technical financial solutions, meaning it only partially addresses disaster risk. The World Bank notes the “limited, albeit important, role that catastrophe insurance can play” in a country’s disaster risk management (World Bank, 2010b: 22). First, the intervention is not designed to fund all or even a major part of the cost of recovery after disasters because available risk transfer solutions in financial markets at that scale would be unaffordable. Second, the solution is not designed to address the full scope of the identified problem, comprehensively covering financial costs of disasters to governments, nor tackling the long-term financial precarity of governments’ balance sheets (see World Bank, 2012). Third, the solution only covers catastrophic losses, not smaller more frequent losses arising from disasters, again because of the cost of reinsurance premiums. The intervention could have been designed differently, beyond financial products available on the market. For example, as noted above, there are opportunities for a range of investments in reducing vulnerability or mitigating damage before disasters strike. Indeed, in the World Bank’s review of CCRIF’s operations, donors explicitly noted the “trade-off between funds allocated to financial risk transfer and those allocated to physical investments that would provide a lasting reduction in vulnerability to natural disasters” (World Bank, 2011: 51). CCRIF is only ever designed as a partial financial solution, which excludes political bigger picture problems and solutions from the scope of intervention.

Similarly, TCX represents a narrow technical financial solution to a narrowly identified financial problem. In TCX, the problem of supporting local currency lending is translated into a remarkably narrow financial solution: hedging instruments. TCX's first annual report announces its objective, in its opening sentence, is to "invest, along commercially sound principles, in long-term emerging-market currency and interest rate *derivatives*" (TCX Annual Report 2007: 2, emphasis added). Its mission statement is "to be a leading catalyst for the development of long-term local currency *hedging products*" (TCX Annual Report 2009: 6, emphasis added). Having diagnosed the problem as local currency financing, the underlying cause is analysed as hedging – lenders are unable to provide local currency lending on a hedged basis, in line with and accepting standard market practice. To provide loans on a hedged basis, the market standard intermediary model operates through hedging products provided by banks (also discussed in Chapter 6). Banks place these currency risks back into local markets, matching supply and demand. The model breaks down if a country's local currency market cannot absorb those risks. To solve this hedging problem, TCX provides hedging instruments by retaining the currency risks on its own balance sheet and relying on diversification to manage risks. This circumvents the need for a functioning market at sufficient scale in the relevant local currency. Here, the solution narrowly addresses the diagnosed technical problem and, as with IFFIm, is driven by available financial instruments and practices. Beyond hedging for lenders, supporting local currency lending is also about limiting the adverse impact of significant devaluations for end borrowers. Again, the TCX intervention proposes a narrow, partial financial solution. While it absorbs some foreign exchange variation in a development loan, end borrowers still face a range of impacts, including the 'real' effects of economic crisis and currency devaluation. TCX does not offer a solution to tackle DAC currency volatility, which might mean challenging power relations in trade, for example. Instead, the intervention offers a much narrower technical financial solution.

The designs of interventions are not just financial, but in line with and promoting market standard financial logics, techniques, and practices. TCX is set-up with the TCX Fund at its centre. This fund has shareholders, the DFIs, like a typical investment fund. The fund is then managed by an investment manager, TIM, again in line with common market practice, in this case an 'in house' model. The fund is expected to deliver its shareholders a modest positive return, in line with market norms. Its operations are guided by standard financial market logics, such as portfolio diversification for risk management purposes, or the concept of managing currency risk through hedging exposures. TCX operates in line with standard financial market practices, such that, even in the context of explicit social goals, the intervention in many ways resembles an investment fund more closely than a development project. Similarly, CCRIF was initially set-up as a multinational catastrophe fund and evolved into a segregated portfolio

company. Its operational model too is in line with insurance industry norms. CCRIF's insurance for member governments and its reinsurance programme are organised through market standard contracts. These initiatives are, in their design and operations, market standard financial solutions to development challenges.

As financial solutions, IDF interventions connect target beneficiaries to global financial markets and institutions, changing social and economic relations in development. TCX's target beneficiaries are borrowers in low- and middle-income countries. In practice, these are overwhelmingly SMEs through the microfinance sector, the financial sector (banks), and infrastructure actors. Through new networks of social and economic relations, these actors become connected to global financial markets and large financial institutions. These financial markets include currency markets, derivative markets, and markets for money market instruments and debt instruments, such as US treasury bills. This matters politically, in particular because SME borrowers' business, and therefore livelihoods, become contingent on these markets and their actors, through the loans which entangle TCX. Furthermore, these markets tend to be volatile, which may adversely impact on livelihoods. Moreover, end borrowers and investors become connected to the currency markets of a wide range of countries as TCX had positions in between 18 (in 2008) and 56 (in 2019) DAC currencies in its primary portfolio and offered hedging products in 95 currencies covering 112 countries in 2019. Similarly, IFFIm connects vaccine recipients to capital markets and CCRIF connects Caribbean citizens to insurance markets, and a host of global financial institutions. In this way, IDF interventions place financial actors and markets between development institutions and intended beneficiaries, meaning development becomes intermediated by financial markets.

All three cases make ambitious claims; however, it is interesting to note they come down to 'playing with time' technically, or more specifically financially. IFFIm seeks to bring forward funding for immunisation, CCRIF's key success is to speed up funding after disasters, and one of TCX's goals is to extend the length or maturity of development lending. The financial interventions, then, in some ways boil down to technically playing with time – moving in time, speeding up in time, or extending in time. Expectations for these technical interventions, as Li noted, are "nothing short of spectacular" compared to the modest means (2007: 128): IFFIm to support immunisation across all Gavi-eligible countries by shifting some aid funding forward, CCRIF to manage hurricane, earthquake and other disaster risk through quick but small insurance payments, and TCX to shield borrowers from currency volatility through derivative contracts. It is perhaps little surprise to find that these technical financial interventions do not meet all of their claims (see Chapter 6; see also Li, 2007).

7.3.3 Gaps and contradictions

Examining the cases has revealed that IDF interventions can be analysed as technical financial solutions – both *technical* and *financial*. Analysing these interventions reveals gaps and contradictions in their problematisation, solution, and logic more broadly, which I provide examples of here (similar to the exposition in Li, 2007).

IFFIm's solution is strongly driven by available financial instruments and models, rather than needs, and this exposes important gaps between health needs and the intervention's design. In the design of IFFIm, it is noteworthy that the generic IFF concept preceded IFFIm, only becoming attached to immunisation later in the process. The IFF concept was designed to frontload a lump of funding in a one-off move to substantially increase development resources, in the context of the MDGs. In contrast, immunisation programmes are long-term, ongoing efforts where a new cohort of children must be vaccinated every year. It is not clear that the needs of immunisation programmes and the IFF solution fit together well. In particular, there is a mismatch between the financial profile of ongoing, annual funding requirements for routine immunisation, and the financial profile of the IFF(Im) model of frontloading.

Interventions can absorb financial logics to the extent that gaps in social logic appear. In finance, it is common practice to discount the value of money in time. The rationale is that a dollar today is worth more than a dollar tomorrow – known as the time value of money. IFFIm's frontloading model somewhat absorbs this logic. IFFIm's resource guide explains that frontloading "is the process of shifting financial resources from the future to the present" (2019a: 11). This is framed as valuable because, if a donor pledged \$100 million over 10 years, then "Without IFFIm, Gavi would be limited to spending a maximum of US\$ 10 million each year from this pledge – and would have to wait 10 years before seeing its full impact", whereas with IFFIm "Gavi can use today most of the money that will be paid by the donor over the next 10 years" (IFFIm, 2019a: 11). Given that frontloading is costly (see Chapter 6), the rationale underpinning this statement is that a smaller amount of resources for vaccines today is more valuable than the full amount of resources spread out in time. The question is whether we are comfortable with fewer vaccine doses distributed today (and by extension lives saved) at the expense of a larger number over ten years. This is of course a complex question with many other considerations, such as the price evolution of vaccines, the community-wide health benefits of vaccines, the ethical issue that a vaccine now may prevent a future death, and the characteristics of the diseases targeted. However, to the extent that pulling forward funding for immunisation in time reduces the resources available in future, the frontloading

logic is, in a way, analogous to discounting the value of lives saved across generations. From a social perspective, this is not necessarily logical and raises important political and ethical questions over inter-generational health (for more relevant political and ethical questions raised by the PEF, see Erikson, 2019).

There are gaps between the diagnosis of the problem and CCRIF's solution, connected to the intervention's limited financial domain. Some of these are acknowledged in project documentation. First, the solution's design narrowly focused on insurance does not directly address the intervention's aim to reduce post-disaster financial vulnerability. In an evaluation of its support to OECS countries⁷³ participating in CCRIF, the World Bank's independent evaluation group rated the relevance of the design only as 'modest', noting "there is a disconnect between the objective of reducing financial vulnerability and the design of the means and the scale of achieving it" (2012: 6). This leads to the second gap, the scale of the financial support provided by insurance is insufficient to address a country's financial vulnerability after a disaster. In addition to findings in Chapter 6, there is further evidence in the World Bank evaluation, which notes "questions about the significance of the scale of financial support in relation to overall post-disaster financial vulnerability" (2012: 2) and "uncertainty about the payout in relation to total financial needs for disaster response" (2012: 3). Third, the solution's narrow focus on short-term government asset losses is inconsistent with the objective of managing country financial vulnerability. The World Bank evaluation notes it is not clear "why the restriction to government asset losses and immediate impact was consistent with the financial vulnerability objective" (2012: 2), underlining that speed of relief is only one part of reducing financial vulnerability (World Bank, 2012). In summary, the World Bank's evaluation concludes that "it remains unclear how far reduced financial vulnerability was to go and there is a disconnect between this quite ambitious stated intent and the means which was simply temporarily providing some modest insurance for a small part of the national risk." (2012: 4).

There are further contradictions which remain unacknowledged, for example, there is a contradiction related to debt between the analysis of the problem and CCRIF's design. Part of the World Bank's diagnosis of the problem of managing disaster risk for Caribbean countries is that many of them have high levels of debt, which restricts their fiscal space to respond to catastrophes. There is a contradiction in the analysis here, because many countries have taken on additional debt as part of CCRIF's solution. First, at the outset, the OECS countries

⁷³ The World Bank project supported OECS (Organisation of Eastern Caribbean States) countries include Dominica, Grenada, St Lucia, and St Vincent and the Grenadines.

funded their participation fees and insurance premiums through IDA credit as part of a parallel World Bank project. Second, in the wake of the Global Financial Crisis, 7 out of 16 participating governments borrowed from the Caribbean Development Bank to pay insurance premiums for the 2009/2010 season. Third, the funding model for Nicaragua (and Honduras though not yet implemented) to join CCRIF was to fund participation fees and insurance premiums through IDA credit.

There are also gaps and contradictions in CCRIF's solution. For example, risk transfer to insurance and financial markets, most importantly through reinsurance contracts, is not necessary for the contribution CCRIF makes to member governments' financial vulnerability. As revealed in Chapter 6, CCRIF rarely makes claims on its reinsurance policies, with only one claim exceeding \$1.3m in 2017/2018, a particularly bad hurricane season. In that year, CCRIF would have been able to cover the full payout to member governments (\$62 million) without the reinsurance payment (\$29 million) as it had enough cash reserves left (\$38 million) at the end of the year (in addition to \$82 million in its investment fund). Furthermore, over the period of study, the total spend on reinsurance was \$132 million compared to only \$32 million received in payouts. The reinsurance component of the solution, not to mention catastrophe swaps and bond, are not strictly necessary for CCRIF to provide insurance to members with the benefit of risk pooling. However, as discussed, reinsurance was an integral part of the solution's design. The World Bank's evaluation states "the project was supply-driven in the sense that the insurance solution was the modality on offer when the project development objective seemed to invite a broader demand-driven approach." (2012: 6).

With TCX, there is a contradiction between the objective and the solution's design. Despite the claim to develop local currency markets, TCX's financial solution is highly dependent on, and limited by, the existing state of those financial markets. In other words, the level of development of local currency markets strongly influences TCX's activities in that currency. First, the scale influences TCX's volume of trades in that currency, specifically maximum exposures. Second, whether TCX makes available floating rate products depends on the availability of a suitable local floating rate benchmark. Third, the rates of longer-term fixed rate instruments depend on the liquidity of term markets domestically. Finally, the availability of deliverable products depends on local market regulations and TCX's estimated ability to manage liquidity risk. These are important because they are all examples of financial market conditions and constraints, which determine where and how TCX's solution can operate.

Furthermore, TCX's financial solution is an indirect and roundabout way of supporting local currency development lending, which exposes a gap: an obvious alternative. TCX's goal is

straightforward: to increase the amount of local currency financing for end borrowers. This was translated into creating local currency markets, and a financial solution was devised to hedge currencies with DFIs. Derivative transactions with shareholders are an indirect way to increase local currency lending, and many steps removed from improving financial system and economic sustainability. There is an obvious alternative solution. TCX's shareholders, also its planners, could quite simply just provide their lending denominated in local currency. This would directly increase the amount of development finance denominated in a borrower's local currency. While DFIs report in another currency, typically euros or US dollars, and so conducting their lending programmes in this way would lead to more volatile results in euro or dollar terms, there is nothing actually preventing these DFIs from simply changing their practice. So, how is this (obvious) alternative solution side-lined?

In TCX, apolitical technical formulations of the problem leave a gap in attributing responsibility. The story of TCX's design is presented as "TCX's creation follows from the collective awareness of a group of like-minded investors, coordinated by [FMO], of the problems associated with the common practice of providing long-term (debt) financing denominated in hard currencies to emerging-market clients with local currency earnings" (TCX Annual Report 2007: 2). Here, no actor is responsible. This overlooks the fact that it is those 'like-minded investors' which carry out the 'common' practice of denominating lending in euros and US dollars, despite their 'awareness' of the problems. As the apolitical abstract formulation attributes no responsibility, no door is opened for the responsible party to make a change and current practices of lending in hard currency are de-politicised. Instead, a neutral technical problem is identified, and a technical financial solution can be devised to indirectly address the problem, which conveniently also delivers a profit for TCX's shareholders (in hard currency). However, technical financial solutions have important political effects, which are analysed next.

7.3.4 Techno-financial politics: De-politicising effects

This section turns to examining the de-politicising effects of technical financial interventions. I present examples, in particular from TCX, to illustrate the range of ways the interventions have de-politicising effects, shedding light on the process of rendering technical and so apolitical in IDF (Li, 2007). These findings are situated in the context of a well-established pattern of development interventions having de-politicising effects (Li, 2007; Ferguson, 1994). The difference in the case of IDF is the *financial* nature of the intervention, political choices, power dynamics, narratives, and trade-offs.

Technical financial solutions are not politically neutral but have important political effects. In line with established findings in the literature, IFFIm's solution depoliticises, focusing on the financial domain and excluding political transformation through redistribution of resources or power. For example, there is no change to intellectual property rights for vaccines, there is no construction of local manufacturing capacity or transfer of those capabilities, and there is no support for a political demand for a healthcare system built on the notion of a universal right to health. The solution does not fundamentally address access to immunisation in lower-income countries over the long-term in a way which does not continuously require Gavi's ongoing interventions. There is a parallel here with McGoey's (2016) analysis of the Gates Foundation. McGoey finds that the foundation systematically enhances medical research capacities in the Global North, and does not choose to invest in meaningful, longer-term research capacity in the Global South. Similarly, in CCRIF, political issues are excluded from the bounded technical financial domain. Glaringly, for example, the intervention doesn't address climate change, which is changing the Caribbean region's exposure to disaster risk. Moreover, as noted earlier, political analysis of vulnerability to disasters is conspicuously absent. These interventions not only fail on some of their own claims (Chapter 6), but they exclude political issues and, in doing so, fail to durably support either access to immunisation or managing disasters.

Technical framing de-politicises by hiding political choices. One of TCX's 'key principles', first defined in 2010, is "market-based pricing" or as it evolves over the years "risk-reflective pricing" (TCX Annual Report 2010: 3, 2016: 18). The rationale is that "TCX invests in products that are priced in accordance with prevailing markets and market-based pricing principles, in order to provide its counterparties with a fair price" (TCX Annual Report 2010: 3). Later, a 'fair' price is elevated to a strategic objective, stated as "to provide a fair price to its counterparties, where possible derived from market levels using generally accepted pricing methods" (TCX Annual Report 2011: 5). Here, 'fair' is defined technically as a price set by the market and arrived at through financial market practices⁷⁴. The neutral technical framing hides political choices and calculations. Most obviously, TCX could have decided to set pricing below so-called market rates. In its 2018 letter, however, TCX's supervisory board underlines its position on pricing, stating "local currency financing below risk reflective rates leads to market distortions, doing more harm than good in terms of sustainable market creation" (TCX Annual Report 2018: 5). Behind the technical framing lies a political judgement of 'harm' and 'good',

⁷⁴ This sets aside the contradiction that TCX specifically targets currencies where there are no developed currency markets.

where the board prioritises aligning to the market. The fact market rates do not simply exist, but must be calculated further underlines that pricing is a political choice. Within the same economic frame, for example, calculated market rates could be considered too high due to market failure, such as a lack of trades or the benchmark being overly determined by sovereign borrowing. Moreover, the evaluated risk may be too high given it is calculated by TIM in Amsterdam about markets in countries they do not know well, and people typically under-estimate risk close to home and over-estimate risk far away. Similar seemingly neutral technical choices are made on pricing in CCRIF. For example, its planners are concerned that “risk pooling does not distort price signals to participants about the cost of their exposure to natural disasters” (World Bank, 2012: 43).

Neutral technical framing also de-politicises by obscuring power imbalances. Continuing with the pricing example, this includes who has the power to define norms, make design choices, and determine calculations. In TCX, norm setting and design choices are done by shareholders, the supervisory board, its pricing committee, and senior members of TIM. The calculation methodology is set by dominant financial institutions and their common practices, logics, and models. TCX’s team and its supervisory board determine the data and assumptions, and carry out the calculations. Although framed as technical, powerful financial actors are making choices with political effects, including determining how benefits are distributed. Indeed, the supervisory board connects the ‘fair’ price to the, by implication fair, return TCX generates in its statement “we closed the year with a net profit of USD 28.3 million. This is equivalent to a return of 5.1% over the Fund’s net assets at the start of the year, in line with TCX’s objective of investing at a fair price to yield a modest positive return over operating costs and expenses” (TCX Annual Report 2013: 6). In another example, TCX set a ‘fair’ price for its first hedges in Paraguayan Guarani. As with many currencies, “identifying a floating rate benchmark in Paraguayan Guarani was not easy” because the government doesn’t regularly issue treasury bills, the central bank only issues notes to banks, and sovereign issuance was focused on very short tenors of just 14 and 35 days (TCX Annual Report 2010: 27). In this situation, TCX’s decision-makers set an alternative benchmark rate, opting for one published by the central bank, to ensure “a fair currency swap pricing” (TCX Annual Report 2010: 27). While this appears neutral and technical, this choice determines the price of hedges for TCX and its shareholders, therefore also affecting end borrowers. In IFFIm and CCRIF, too, technical financial framing determines who gets to be involved in the design and solution, and obscures the power of different actors, supporting private financial actors.

More broadly, the ‘win-win’ narrative of IDF is de-politicising (see also Büscher, 2010), concealing trade-offs between financial profits and development progress. TCX’s managing

board states “we combine a profit motive with a focused approach to impacting the development of Africa, Asia, Latin America, and Emerging Europe” (TCX Annual Report 2010: 2). TCX was designed by its DFI investors with the “dual intention to create a commercially sound solution to their own currency hedging needs and to contribute to the general development of local currency capital markets” (TCX Annual Report 2007: 2). Going further, TCX frames the development problems it sets out to address as potential sources of profit; this is captured in TCX’s statement that “turning social responsibility into opportunity for our investors and their clients is our business” (TCX Annual Report 2010). These narratives tell a story where there are no trade-offs or compromises between the goals of profit and development. For example, TCX’s expectation to deliver a return to its shareholders from its portfolio of emerging market currency positions (see TCX Annual Report 2009, 2010), does not examine the effects its trading may have on those currencies’ exchange rates, their volatility, and knock-on consequences. Increasing the volume of trades in a currency market necessarily has social and political effects, as financial markets do not exist in a vacuum but touch down in space and connect to the ‘real’ economy (Pike and Pollard, 2010; Harvey, 2018 [1982]; Leyshon and Thrift, 2007).

Similarly, IFFIm delivers a return for bondholders while frontloading aid funding for immunisation, without acknowledging the significant interest costs of vaccine bonds and its trade-off with funding for Gavi and its beneficiaries. CCRIF also sets up a ‘win-win’ where member governments manage risk while reinsurance players expand their catastrophe insurance market in the Caribbean region. With ‘win-win’ stories, important political trade-offs are left unexamined. There is no examination of who the winners and losers are, where the profit comes from or how it is created, its costs for beneficiaries, or what alternative projects are not pursued as there is no source of profit. The narrative of only winners de-politicises an intervention, and pre-emptively limits challenge and resistance.

There are, of course, both winners and losers. Technical financial framing doesn’t raise or answer the question ‘for whom?’, discretely concealing who is benefitting, how much, and in what way. For example, the narrative of TCX’s local currency linked bonds has a de-politicising description of benefits for all. In 2017, when TCX supported 15 bond issuances, its supervisory board stated “All parties gain: the development banks get access to an alternative funding source; the commercial investors get access to a unique asset; and TCX creates capacity to do more in these currencies, by ‘onselling’ the currency risks. The combined strengths of the private sector, development banks, and TCX thus generate significant development impact through the deepening of the local currency markets. Truly a unique synergy” (TCX Annual Report 2017: 5). The group conspicuously missing from the list of ‘all parties’ are intended

beneficiaries. They are only included in a vague, catch-all positive ‘development impact’. So, for whom does TCX promote “the deepening of local capital markets by supporting off-shore local-currency bond issuances”? (TCX Annual Report 2018: 10). One answer is that TCX is “focused on developing an active market for investors that want to invest in the high yielding currencies of emerging and frontier markets” (TCX Annual Report 2019: 5). In this case, the activity is oriented towards commercial investors (and shareholders). More broadly, despite apolitical technical statements, interventions are inevitably oriented towards particular actors.

Relatedly, neutral technical language also de-politicises the reality that there are trade-offs across different groups of stakeholders. In general, TCX’s design is oriented towards its shareholders, not beneficiaries. The TCX Fund is set-up such that the DFI investors are both its shareholders and clients, which aligns its incentives clearly to the DFIs. This is a design choice presented as a positive technical feature, indeed one of TCX’s key principles is “alignment with shareholders” (TCX Annual Report 2010: 3). This is framed as a strength because TCX has “unique origination access to their combined client networks and dealflow” and “tailors its investments to optimize their use for these institutions” (TCX Annual Report 2010: 3). However, TCX could align and tailor its offering to other stakeholders, notably end borrowers, the target beneficiaries. Here, rendering technical and the ‘win-win’ narrative obscure the reality that different parties have different positions and interests, which may conflict.

Neutral technical framing also obscures trade-offs for commercial actors active in financial markets, not just intended beneficiaries. TCX’s narrative insists on framing the intervention as ‘additional’ to available market offerings. Its investment policy states “TCX does not displace existing appetite for investment in emerging markets” (TCX Annual Report 2007: 27). TCX’s “explicit intention to use markets to their capacity for hedging will ensure no or limited displacement of local market players will occur” (TCX Annual Report 2007: 27). Furthermore, its mission statement includes that “its products are additional to those transacted by regular (commercial) market parties” (TCX Annual Report 2009: 6). While commercial financial market actors are carefully considered, and indeed many of their interests sit at the heart of TCX’s initiatives, there may nevertheless be trade-offs in TCX’s design. Here, for example, TCX’s ‘additional’ narrative connects to its explicit framing as a market solution. The intervention has the dual aim to foster competition in the market, for example to increase the offered maturity, but also to be additional, or in other words to avoid competition with commercial market players. These two goals – to spur market development through competition and to not compete with existing players – do not easily sit side by side, and may actually be incompatible. Technical framing skirts around this issue, presenting a de-politicised picture of

TCX operating within and alongside financial markets, without negative effects for existing actors. Like with target beneficiaries, the technical narratives gloss over potential conflicts of interest, presenting a picture of uncontested close alignment.

7.3.5 Conclusion: Rendering financial?

IDF represents a *technical* and a *financial* solution to a development challenge. The process of problematisation bounds a financial domain of intervention. Within this domain, a development challenge is translated into a financial problem which is amenable to a financial solution. The IDF interventions are, in turn, financial solutions. Both the problem and solution are driven by the availability of the solution – the diagnosis of the problem anticipates the solution, and the design of the solution draws on available market standard financial instruments and models, rather than needs or even the diagnosed problem. Furthermore, the problem and solution are technical, a technical financial problem is diagnosed and the solution is rendered technical. The financial interventions are, therefore, at the same time technical interventions. In IDF, the process of rendering technical is closely connected to development being financialised.

Bringing these ideas together, and building on Li's (2007) concept of 'rendering technical?', I suggest this could be characterised as 'rendering financial?'. Rendering financial captures development being financialised – a financial domain is bounded, a financial problem diagnosed, and a financial solution devised. The concept also echoes and tries to capture Li's rendering technical where a technical domain is bounded, a technical problem diagnosed, and a technical solution devised. Rendering financial can be understood as one way of rendering technical. Li uses the question mark to capture that rendering technical is never complete as political issues do not disappear, instead they can stimulate a political response. Here, I keep the question mark to underline the exploratory nature of the argument, and to connect to the future possibility of a political response, which has not yet manifested.

The concept of rendering financial helps explain why IDF interventions fail on their own terms (as in Chapter 6). In bounding a financial domain, the financial solutions are limited, address a narrow part of the challenge, are only ever designed to partially address the problem, and are often indirect interventions. Furthermore, the financial domain excludes political issues from both the problematisation process and the solution, including as root causes of poverty and the challenges the intervention intends to tackle. The limited nature of the solution and

excluding politics also result in gaps and contradictions in the problematisation, solution, and logic more broadly, further contributing to the recurring picture of failure.

Rendering financial has political consequences. Like past development interventions, IDF projects have mixed outcomes (examined in Chapter 6). Nevertheless, interventions have political effects which, as Ferguson (1994) argued, are more or less consistent. Ferguson (1994) found the effects were to de-politicise and expand state power. For IDF, I build on these ideas, similarly identifying two important political effects, but with some differences.

First, rendering financial renders the intervention apolitical. There are a range of ways technical financial interventions have de-politicising effects. In the bounded financial domain, political or structural transformation, redistribution, or changes in power are excluded from the frame. Rendering technical also obscures political choices in a solution's design and the power imbalances an intervention incorporates or perpetuates. More broadly, 'win-win' narratives in IDF hide the reality that interventions have winners and losers. Finally, interventions are oriented towards particular actors, and rendering technical conceals the trade-offs between benefits and costs for different stakeholders. In line with this chapter's theoretical framework (see Ferguson, 1994; Li, 2007), it is worth emphasising that while an intervention may be rendered technical and seemingly neutral and apolitical, the intervention nevertheless remains political because it aims to effect social and economic change, shaping people's lives.

Second, rendering financial also financialises. This argument draws on evidence from the analysis presented here, together with Chapter 5 and Chapter 6. Technical financial interventions are composed of financial instruments traded in financial markets, increasing the material scale of those markets. Development interventions are, therefore, intermediated by and become contingent on financial markets and actors. Interventions are governed by financial market imperatives, including the investment logic of generating a return, demands for a risk-reward payoff, as well as financial market practices and norms. Furthermore, as the intervention draws on available financial instruments and financial models, the intervention's design is oriented towards financial actors, for example as shareholders or bondholders. In these ways, the discursive power of financial actors to set development agendas and norms is increased, and the financial sector gains material power to influence and determine the outcomes of development interventions as well as through its expanded size. Rather than expanding state power⁷⁵ as in Ferguson's study (1994), I find IDF interventions expand the

⁷⁵ In Ferguson's analysis, published in 1994, the state and market are positioned as separate, whereas recent work on state capitalism suggests the state and market are increasingly entangled in

financial sector's power. This shift in the structures of power in development towards the financial sector is a deeply political process, like financialisation more generally (see Chapter 2), in part on its own terms, and also because of the entanglements between the state and (financial) capital. In summary, the political consequences of rendering financial are twofold: to de-politicise, and to financialise.

7.4 Rule of financial experts? Knowledge and power in innovative development finance

This section examines the politics of IDF through the lens of knowledge and power. The first part examines the role of experts and expertise, including who the experts are, what their expertise is, and where they are. The second part turns to examining the role of financial models and instruments which constitute IDF initiatives.

7.4.1 Financial experts

Repeatedly, and across all stages of the IDF interventions, there are financial experts at the centre. Early on, financial experts are part of the design of the financial solutions. Once launched, financial experts are part of the governance of interventions, leading initiatives, and managing their operations. I begin with a brief story of the events which sparked the creation of CCRIF, which helps illustrate some of these arguments.

The 2004 Atlantic hurricane season was one of the most active and damaging on record. 15 named storms developed, 9 became hurricanes, of which 6 became major hurricanes. This was well above long-term averages at the time of 10.2 named storms, 6.0 hurricanes, and 2.6 major hurricanes since reliable records began in 1944 (WMO⁷⁶, 2005). The season had particularly intense and long-lasting hurricanes. Ivan was a major hurricane for ten days, a record duration for one storm since 1944, and reached an intensity only exceeded by five other tropical cyclones in the Atlantic basin before 2004 (WMO, 2005). The Caribbean was hit hard. In particular, Charlie hit Cuba as a major hurricane; Ivan killed people and caused widespread damage in Grenada, Jamaica, the Cayman Islands, and Cuba; and Jeanne caused severe flash flooding in Haiti leaving over 3,000 dead and 200,000 homeless. It is

development finance (Alami, Dixon and Mawdsley, 2021). Indeed, the process of financialisation also involves the state (see Chapter 2).

⁷⁶ World Meteorological Organisation.

hurricane Ivan which is credited with being a pivotal moment in the story of CCRIF. Ivan, which passed through the Caribbean in September 2004, affected over 400,000 people, killed 93 people and caused catastrophic damage estimated at \$3.4 billion (World Bank, 2007a). Grenada suffered losses estimated at \$1.1 billion or over double its GDP, around 90% of housing was damaged or destroyed, and 39 people were killed (WMO, 2005; ECLAC, 2005). Jamaica suffered estimated damage of \$575 million, and recorded 17 deaths, and in Grand Cayman impact was estimated at 183% of GDP, with an estimated 95% of buildings damaged or destroyed, and two deaths reported (WMO, 2005; ECLAC, 2005). In September 2004, in the wake of the hurricane season, the Caribbean Community (CARICOM) heads of government held an emergency meeting. One outcome was asking the World Bank for assistance in managing disaster risk (see CCRIF Annual Report 2020-2021; World Bank, 2007a, 2010b). This was the beginning of CCRIF's journey.

Following the request, the World Bank and a set of financial and technical experts got to work designing CCRIF. The design was led by the World Bank, which justifies its role in designing and implementing CCRIF because of its technical expertise and convening power in financial markets (World Bank, 2007a). The World Bank's paper presenting the results of CCRIF's preparation work states that "the highly *technical* and *specialized* nature of setting up the CCRIF has necessitated the use of a wide spectrum of *experts* to tackle the legal, fiduciary, and catastrophe risk modelling and financing aspects of the initiative" (World Bank, 2007a: 3, emphasis added). Based on financial and technical expertise, representatives from across the financial industry and financial services participated in designing CCRIF. Actors from the insurance industry who provided input included catastrophe risk insurance entities, insurance regulators, and private sector insurance and reinsurance companies, brokers and associations (World Bank, 2012). Furthermore, technical actors specialising in financial risk and disasters participated, including actuaries, probabilistic catastrophe risk modelling companies, disaster emergency management organisations, and meteorological, hydrological, and seismic monitoring and research centres (World Bank, 2012). Overwhelmingly, these are private financial sector actors from the insurance industry and related technical fields. Selected based on their technical expertise in finance, insurance, risk, and disaster, these actors had the power to shape the design of CCRIF, which has political effects.

By the end of January 2007, 16 Caribbean countries had confirmed they would participate in CCRIF (World Bank, 2007a). A donor meeting followed in February in Washington, D.C., where contributions of \$50 million were agreed to set-up a multi-donor trust fund to be managed by the World Bank to support CCRIF. A board of directors was appointed in April

2007. CCRIF was established in May 2007, and its first season of operation, 2007/2008, launched on 1 June 2007 with 16 participating countries.

Financial experts continued to shape the intervention beyond the initial design of CCRIF. Picking up the example of member governments' request for flood coverage (discussed above), the World Bank's recommendation for an excess rainfall product followed a workshop with reinsurers, risk modelers, CCRIF, and the Caribbean Institute for Meteorology and Hydrology (CIMH). Notably absent were representatives from member governments. Subsequently, for the 2015/2016 season, CCRIF launched its excess rainfall product, designed with Swiss Re, the largest reinsurer globally. CCRIF purchased all of its reinsurance cover for these policies from Swiss Re, unlike with its earthquake and tropical cyclone cover, which is placed with multiple reinsurers, numbering ten in 2015/2016. This is similar to the Munich Climate Insurance Initiative project, where CCRIF contributed to market research and demand assessment to develop microinsurance products with Munich Re, which subsequently provided the reinsurance cover. Here, private financial industry players both shaped the design of the interventions and provided the commercial reinsurance coverage, expanding their business.

Notably, while there are mentions of collaborating with the region's governments in project documentation, there is no specific mention of drawing on knowledge from Caribbean governments or civil society, the intended beneficiaries, in the design. These stakeholders mainly appeared later in the design process, once it was well underway, joining the main 'consultations and outreach activities' (World Bank, 2012). An 'introductory workshop' was held in Jamaica in April 2006 (World Bank, 2012), where "the general concepts for [CCRIF] were presented to technical staff from CARICOM country Ministries of Finance" (World Bank, 2007a: vii). Two further 'briefings' were held for heads of future member governments in July and October 2006. At the October meeting, a technical workshop in Barbados, the World Bank describes how a "detailed report on the work to design the facility [was] provided" (2012: 12). A key aim of briefings with Caribbean countries was to "build potential members' interest in participating in CCRIF" (World Bank, 2012: 31). In earlier preparatory work, The World Bank did collaborate with the Jamaican Social Investment Fund and the OECS Secretariat, which implemented grants administered by the World Bank on behalf of the government of Japan. The evidence suggests member governments were recipients of information in briefings, rather than providing significant input into the design.

CCRIF's board of directors shows the central role technical financial experts played in establishing and governing CCRIF. The board's first three directors were 'technical experts'

(World Bank, 2008), positioned as neutral, “selected for their experience and expertise in catastrophe risk insurance, insurance regulation, broking, and underwriting, banking, anti-fraud and money laundering, and internal audit” (World Bank, 2010b: 46). Two further directors were appointed in January 2008 by the CDB and CARICOM to represent donors and member countries respectively. They were also selected based on financial expertise, “with distinguished careers in the Caribbean, each of them also brought to the Board substantial experience and expertise in finance, insurance, banking, economics, and corporate planning, as well as more direct experience in interacting with the finance ministries of CCRIF’s participants” (World Bank, 2010b: 46). Beyond the initial appointments, CCRIF’s governance is required to be led by experts, with its operations manual specifying that two of the directors must have specialised expertise, one with insurance expertise and one with financial expertise (World Bank, 2010b). In its operation review, the World Bank highlights the importance of the board continuing to have “the mix of expertise necessary to oversee CCRIF’s operations” (2010b: 47).

Beyond the set-up phase, CCRIF’s ongoing operations are also led and managed by financial experts. The board, and later also the executive team, have a leadership role in CCRIF’s governance. However, its organisational model outsources operations to a series of service providers. These include a facility supervisor which conducts operational and risk management for CCRIF, advises the board on risk transfer, as well as managing several of CCRIF’s other service providers; an insurance manager which provides insurance management, regulatory, accounting and corporate secretarial support, and transaction execution; asset managers which invest CCRIF’s assets; a reinsurance broker which supports CCRIF’s reinsurance purchase and manages any claims; and a communications manager. Professional services firms also fulfil certain roles, such as audit services or legal advice. These actors are selected based on their expertise in a range of financial specialisms, including risk management, insurance, asset management, and reinsurance. With this technocratic financial management operating model, CCRIF’s financial decisions, day to day operations, and advising the board are fulfilled by external expert financial actors from the broader landscape of financial market actors, limiting public accountability. Interestingly, IFFIm is also structured as a board of trustees populated with senior financial experts, outsourcing its operations to the World Bank and Gavi.

In this context, CCRIF maintained close and aligned relationships with reinsurers and financial markets, rather than being oriented towards beneficiaries. This is perhaps unsurprising given the significant overlap with the experts who participated in its design process. Disasters which struck in CCRIF’s early years exposed serious misunderstandings and misaligned

expectations among its member governments (similar to a Kenyan index-based livestock insurance pilot examined in Johnson et al., 2019). In its first season, in August 2007, Hurricane Dean struck, the eighth powerful storm recorded in the Caribbean to date since records began. Dean caused damage, in particular in Jamaica, where total losses were estimated at \$300 million. However, CCRIF's modelled government losses of \$30 million did not trigger a payout on Jamaica's insurance policy, which would only kick-in at a much higher level of \$226 million. The World Bank's operational review is revealing, noting that "in the aftermath of the disaster there were high expectations for payout of the CCRIF both by the government and by the disaster risk community in Jamaica" and that it was clear "there were serious misunderstandings regarding the type of coverage and the level of losses required to trigger the facility" (2008: 42). Moreover, the Caribbean disaster management community's understanding of CCRIF was characterised as 'weak' (World Bank, 2008). No such misunderstanding is recorded with reinsurers or other financial market actors. This pattern continues beyond the first season. In its second season review, for example, the World Bank notes "evidence that officials in some of the participating countries have been surprised when affected by a storm that did not result in a payout" (2010b: 36). Furthermore, in "the general population, some have also been distressed and angry at the lack of payout despite their having suffered great personal loss, and this kind of frustration can generate political pressures on governments in some cases" (World Bank, 2010b: 36), as happened after hurricane Dean and again after hurricane Paloma in the 2008/2009 season. After the 2010 earthquake in Haiti, there was surprise about the size of the payout, considered by many to be small compared to the damage (see World Bank, 2011). A stakeholder survey focused on beneficiaries, published in 2012, indicates low understanding of CCRIF's hurricane and earthquake policies (only 26%, CCRIF, 2012).

While there was 'serious misunderstanding' among member countries, CCRIF was "well accepted in the reinsurance markets" and "generated great interest in the industry as an innovative vehicle to provide catastrophe insurance to governments" (World Bank, 2008: 43). Indeed, CCRIF received the Reinsurance Initiative of the Year award in 2008 from an influential reinsurance industry media outlet (World Bank, 2008). In stark contrast to member governments, for financial markets, the outcome of hurricane Dean "provided additional confidence in the integrity of the CCRIF model, reinforcing CCRIF's position as a neutral broker" (World Bank, 2008: 43). In response to this asymmetrical understanding and relationship, CCRIF and the World Bank concluded it did not have the "necessary communication strategy" (World Bank, 2008: 42) to deal with an event like hurricane Dean where countries did not receive payouts despite significant damage, and hired a specialised communications strategy firm. It is noteworthy that CCRIF's most aligned relationships were

with reinsurers and financial markets. Furthermore, misalignment with beneficiaries did not lead to any reconsideration of its model, but rather to developing a communications strategy. This suggests CCRIF and its design are oriented towards certain stakeholders, specifically private financial actors, rather than intended beneficiaries, member governments and their citizens.

TCX's governance structure is complex and, like CCRIF and IFFIm, is led by financial experts. Ultimate responsibility lies with TCX's supervisory board. Board members represent a range of financial expertise, including investment advisory, treasury functions, asset management, investment fund management, liquidity management, investment banking, and commercial banking. Board members include private finance profiles such as executives from ING Group, Rabobank, and ABN AMRO Bank, as well as senior public finance roles, such as CEO⁷⁷, board member or treasurer, in TCX's shareholders, including KfW, FMO, EBRD, DBSA, or the World Bank Group. The board also has sub-committees of experts which oversee some critical functions. The pricing committee, for example, is composed of "5 independent professionals chosen for their expertise in derivative pricing in emerging markets" (TCX Annual Report 2010). Their profiles come from large financial institutions, such as Credit Suisse, Barclays, and Merrill Lynch, and smaller specialised financial institutions. These experts have a role in setting TCX's pricing methodology, "ensuring state-of-the-art market-based pricing of all transactions" (TCX Annual Report 2010). In TCX's governance, the managing board sits below the supervisory board. In 2009, soon after the fund was set up, the TCX Investment Management Company (TIM) was appointed as the sole member of the managing board, and also acts as its investment manager (discussed further below). Its members also include profiles with significant experience at (overlapping) financial institutions, including FMO, ING Bank, and ABN AMRO Bank, some of which are shareholders in TCX. Together, this means that at all levels of leadership, TCX is led by financial experts, trained and formed in mainstream private and public financial institutions' ways of thinking, logics, and practices.

TCX's management and operations are carried out by a range of service providers, which represent a range of financial expertise, such that it may be characterised as technocratic financial management. TCX's operational model is "strategic outsourcing" (TCX Annual Report 2009: 29). The TCX Fund is operated by an investment manager, TIM, which has overall management responsibility and provides front-office services; a risk manager; a back-office service provider; an administrator with the role of administering, settling and valuing the TCX Fund's investments, managing collateral, and preparing portfolio reports and financial

⁷⁷ Chief Executive Officer.

reports for TCX's leadership; a compliance advisor; and a depositary, which is responsible for safe-keeping of assets and additional controls. In addition, TCX relies on further professional services firms, for functions such as legal, custodian and audit. Alongside these service providers, and in contrast to CCRIF and IFFIm, TIM is composed of a team of ten financial professionals in 2010, growing to 22 employees in 2019.

TCX's network of financial experts is complex, which limits scrutiny and complicates accountability. Some of the firms which support TCX have complex ownership structures and relationships to one another. As part of TCX's creation in 2007, a TCX investment manager was set-up, with FMO as its sole shareholder. A few years later, in 2010, FMO incorporated the TCX Investment Management Company (TIM) and all of its shares were acquired by Cardano Development, a sister company of TCX's risk manager, Cardano Risk Management. Both Cardano Development and Cardano Risk Management are 100% subsidiaries of Cardano Holding. Later, in 2013, all of Cardano Development's shares were transferred to Stichting Cardano Development. This organisation, a non-profit with charitable status which is tax exempt, was created by the Cardano Group to separate its development activities from the rest of the group. Statements in TCX's 2013 and 2014 annual report provide little comfort on this somewhat complex situation. The first reads "Cardano Risk Management B.V. and Cardano Holding B.V., are unrelated to Cardano Development B.V. and Stichting Cardano Development, except that the CFO of Cardano Holding B.V. is also part time director of Cardano Development B.V. and chair of the supervisory board of TIM, and the CEO of Cardano Holding B.V. is also the chair of the trustees of Stichting Cardano Development and chair of the supervisory board of Cardano Development B.V." (TCX Annual Report 2013: 28) and the second states "Cardano Holding B.V. and Cardano Risk Management B.V. are unrelated to Stichting Cardano Development and Cardano Development B.V., except that (i) the chairman of the Board of Stichting Cardano Development is also the Co-CEO and a minority owner of Cardano Holding B.V., (ii) the COO⁷⁸ of Cardano Risk Management (UK) Limited (a sister company of Cardano Risk Management B.V.), is the chairman of TIM's Supervisory Board, and (iii) there is a financial relationship between Cardano Holding B.V. (as lender) and Stichting Cardano Development (as borrower)" (TCX Annual Report 2014: 24). So, not only do the leadership team overlap across these 'unrelated' organisations, but there is also a close relationship through the movement of key people between them. For example, in 2014, TCX's CEO stepped down and became the Co-CEO of Cardano Development, together with a member of TCX's Risk and Asset and Liability Management Committee. Additionally, in 2011, TIM took over TCX's back-office and administration functions which were

⁷⁸ Chief Operating Officer.

previously carried out by another firm. Then, on 1 February 2013, TIM outsourced these two functions to DLM Finance, a company set-up, staffed, and owned by ex-employees of TIM who had resigned the day before, on 31 January 2013. The statement in TCX's annual report is that the outsourcing "involves no changes in the Fund's day-to-day operation" (TCX Annual Report 2012: 22). These structures raise questions over conflicts of interest, and show how the complex network of financial experts and firms makes the intervention harder to scrutinise or challenge.

The story of IFFIm's origins (see previous section) also reveals the interplay of key individuals and institutions, already networked in webs of politics and finance. This can be analysed through the idea of 'policy windows' (see for example Fukuda-Parr and Hulme, 2009, on the MDGs in the late 1990s to early 2000s). Like Tony Blair, Gordon Brown had a personal stated commitment to international development issues (Honeyman, 2009), set within a strong New Labour commitment, most notable in the creation and relative autonomy of DfID. The MDGs were a moment of 'global' optimism, in the context of a rising (if turbulent) period of economic growth. Both as Chancellor and Prime Minister, Brown supported policies to expand spending while keeping it off-budget (an accounting advantage also featured in social impact bonds, see Dowling, 2017). While the aim here is not a full analysis of the wider contexts and contestations around New Labour's economic strategy and the factors shaping Gordon Brown's turn to private finance initiatives (see Sawyer, 2007; Kitson and Wilkinson, 2007), it is important to note that IFFIm did not emerge in a vacuum. Like other IDF interventions, it is a product of a very particular interplay of political contexts, particular actors, circumstances, and choices.

Important decision-making was delegated to private financial actors, which, together with the process of rendering technical, supports technocratic financial management. The state, largely in the guise of an individual politician, Brown, appears as the seed for the idea of IFFIm in the story of its origins, in line with findings on the state's role in financialisation more broadly (see Weber, 2010; Brooks, 2016; Alami, Dixon and Mawdsley, 2021). However, decision-making on important 'neutral' technical design details was delegated to private financial actors. These were involved in IFFIm's design based on their financial and legal expertise, which are oriented towards investors. In particular, decisions were made by actors from an investment bank, Goldman Sachs, which later acted as the arranger for IFFIm's Global Debt Issuance Programme; and finance lawyers, specifically from Linklaters during the design phase. Credit rating agencies also strongly influenced the technical design of IFFIm. So, while the complexity of the scheme demands considerable technical expertise, as Allen and Pryke (2013) observe, the effect is to politically 'ring-fence' public money. However, designing IFFIm

is not neutral but deeply political – choices are made about who is benefitting in what way, by how much, who is paying, and who might be losing out.

The example of credit rating agencies' influence on IFFIm illustrates some of the financial knowledge and expertise central to IDF initiatives, and the technocratic financial management practices at work in their design and operations. As gatekeepers to credit, credit rating agencies are important financial actors, and play a significant role in financialisation (see for example Omstedt, 2020). To begin, the decision over how to set up IFFIm – as a UK registered charity rather than an offshore special purpose vehicle (SPV) borrower – was heavily influenced by credit rating agencies. In the words of Gillespie, the former Chairman of IFFIm, “the rating agencies also wished to see it as an entity of some substance rather than just an SPV” (McCormick, 2007: 81). For Rice, of Linklaters, a UK charity “demonstrate[s] there is an element of regulation, for want of a better word” (McCormick, 2007: 81). Another important decision in the structuring of IFFIm was to secure its classification as a supranational, which means that central banks and other official institutions can invest and that credit rating agencies adopt distinct criteria in their rating approach. For IFFIm, this means the rating approach is like multilateral development banks but tailored to its unique structure, such that ratings are primarily driven by support from donor governments. To support that argument, the legal and financial architects of IFFIm did not want it to have to give security to bondholders over its rights to receive the income stream from the donor government pledges. Rice illustrates the power of the credit rating agencies, as he said: “we went into bat very heavily with the rating agencies, insisting that security was not needed”, adding “we spent a long time on this” (McCormick, 2007: 82). Turning to the credit rating assessments, one of the most important legal issues the credit rating agencies focused on was the validity and effectiveness of the government pledges, resulting in a time-consuming process to ensure the pledges were legal, binding, and enforceable (Rice in McCormick, 2007). On the financial side, the credit rating agencies focused on “the importance of swapping all pledges into floating dollars up front to take any currency volatility out of the credit structure” (Gillespie in McCormick, 2007: 83), as well as the World Bank being party to the structure to bring their financial management experience to IFFIm. These design decisions, in part influenced by credit rating agencies, are evident in IFFIm's final financial model, which uses swaps to hedge all its currency and interest rate exposure for both donor government grants (assets) and bond interest and principal payments (liabilities), and has the World Bank as its treasury manager.

Political decision-making and the financial management of IFFIm, and therefore political power, are distributed spatially unevenly (also reflective of and producing the uneven distribution of material rewards revealed in Chapter 6). IFFIm emerged in the policy context of

the MDGs, which have been critiqued as an agenda set by rich countries reflecting priorities of the Global North without meaningful consultation of countries in the Global South (Hulme and Scott, 2010). Within this policy window (see Kingdon, 2003 [1984]), the UK state, and specifically Gordon Brown as Chancellor, emerges as the source of the seed for the idea of IFFIm as well as its key promoter. This seed was nurtured, requiring a significant amount of work, by both public and private sector actors, and eventually bloomed as the IFFIm state-market hybrid, with the full legally-binding financial commitments of government development agencies and finance ministries, initially all in Europe. Throughout the story of IFFIm, the state has agency and plays a central role in the assemblage which creates IFFIm and builds a market for vaccine bonds. This process, which is necessarily connected to place, reveals a particular spatial political structure centred on the UK, or London more specifically. It is the UK government which emerges as the central (political) state figure, represented by the Chancellor, the Treasury and DfID.

Looking beyond state actors reveals a similar concentrated uneven spatial pattern of power. Decision-making on important financial and legal matters was delegated to or advised on by specialist financial and legal private sector actors based in London (the financial institutions, professional services firms, and credit rating agencies identified earlier). Similarly, operational matters relating to bond issuances are conducted by financial institutions predominantly based in London. This pattern is further reinforced by the spatially uneven, although slightly less concentrated, distribution of bondholders and their agents in financial centres in the Global North (see Figure 26 in Chapter 6). This is important geopolitically; state actors or technical advisors from intended beneficiary (Gavi-eligible) countries are not present. Instead, the political decision-making, power and control over financial flows is connected to particular places which, as discussed, are also the ones which materially benefit from IFFIm's financing model.

Evidence suggests the financialisation of development is shaping economic geographies in which material rewards and political power are distributed unevenly, concentrating in (a small number of) financial centres in the Global North. Not only do the financial models distribute returns in a particular uneven pattern (see Chapter 6), but the decision-making power and influence over financial flows which rests with the actors which make up each financial model, namely bondholders or investors, financial institutions, professional services firms, and certain state actors, are also connected to space and place in this uneven concentrated pattern. The result is material, social and political inequality.

However, there can be more nuance than the remarkably consistent picture so far across all three case studies of financial experts from the Global North in the driving seat. CCRIF, once launched and established, has more elements of ‘ownership’ of operations in the Caribbean region. First, legally, its ownership structure is in the Cayman Islands. The CCRIF was legally established as a Star Trust and administered by a trustee, both in the Cayman Islands. A CCRIF company was established incorporated in the Cayman Islands and 100% owned by the trust. Member countries are legally the beneficiaries of the trust. Second, from a governance perspective, CARICOM has power in CCRIF’s governance model. CARICOM has the authority to instruct the appointment of two members of the board of directors and appoint (or remove) CCRIF’s enforcer. Similarly, the CDB has the authority to appoint two board members. CCRIF’s board of directors, which varies in composition over the period, includes members from the Caribbean, including from St Lucia, Barbados, Jamaica, Grenada, and Guyana. The executive team includes a CEO appointed in 2013 from St Lucia and a COO appointed in 2015 from Trinidad and Tobago. Like the board, the executive team are financial experts, selected based on their finance and insurance expertise. Finally, operationally, many of CCRIF’s key service providers are based in the Caribbean. Most importantly, the facility supervisor from inception up to the 2013/2014 season, Caribbean Risk Managers, operates primarily in the Caribbean, including offices in Barbados and Jamaica. The insurance manager for the whole period, Sagicor Insurance Managers, positions itself as “the leading indigenous financial services organisation in the Caribbean” (CCRIF Annual Report 2007-2008: 4) with a presence in 21 countries across the region. Sustainability Managers, CCRIF’s communications manager from 2008/2009, is based in Jamaica. In contrast, CCRIF’s asset managers and reinsurance brokers typically have a more global profile, neither focused on nor largely based in the Caribbean region. Reinsurance providers are also global firms, based in financial centres in Europe and Bermuda (see Chapter 6). Specialist firms, engaged in the 2014/2015 season, in the areas of risk management, risk modelling and hazard assessment, operate globally and are not primarily based in the Caribbean region (similar to the chief risk management officer appointed in 2018). CCRIF, therefore, disrupts the simple geographical pattern, with its legal structure, leadership team, some key service providers, and some reinsurers based in the target ‘beneficiary’ region. Of course, parts of this region, notably the Cayman Islands and Bermuda, are global financial centres.

Furthermore, there is some evidence this ‘ownership’ results in different decisions than would have been made had experts from the World Bank or other donors continued to lead the initiative beyond the design phase. Documentary analysis suggests some tension developed in the first three years of CCRIF’s operations, when the World Bank was still closely involved in reviewing its operations, over CCRIF’s technical assistance programme. In 2009, CCRIF

launched the programme with the aim to increase its value to member countries, to support their “understanding of natural hazards and catastrophe risk, and the potential impacts of climate change on the region” (CCRIF Annual Report 2009-2010), and the board approved a separate budget line for technical assistance costs to be funded from previous investment income. Activities include a scholarship and professional development programme, regional strategic knowledge building, and support for local disaster risk management initiatives. In its first year, for example, CCRIF commissioned a research project on the economics of climate adaptation (ECA, conducted by CCRIF’s facility supervisor, regional partner climate organisations, McKinsey & Company, and Swiss Re), set-up partnerships with regional climate and disaster organisations, provided technical support with CIMH for reconstruction in Haiti after the 2010 earthquake, and sponsored a regional disaster management conference. CCRIF spent \$818,000 on technical assistance in 2009/2010 (of which \$623,000 was the ECA study), and spending totalled \$5.9 million by 2018/2019.

Disagreement over the technical assistance programme provides some evidence that CCRIF’s leadership team has some autonomy from the World Bank and donors and independent decision-making power over CCRIF’s activities. Overall, CCRIF’s member governments and CARICOM as well as regional organisations have a positive perception of the technical assistance activities. In the World Bank’s review of CCRIF’s third season, regional organisations are reported to have “largely favorable” views (2011: 51). The World Bank reports that “representatives of CCCCC⁷⁹ and CARICOM interviewed for this review welcomed CCRIF’s TA⁸⁰ program and the prospect for collaboration” and, interviews with CIMH and CDEMA⁸¹ “expressed satisfaction with CCRIF’s support and collaboration” (2011: 51). In particular, members said they had benefitted from sponsorship to participate in professional development, although there was varied awareness of all elements of the technical assistance programme (World Bank, 2011).

On the donor side, however, there is evidence of negative and critical opinions of CCRIF’s technical assistance activities. The operation review summarises that some representatives of donors “were particularly critical of CCRIF’s TA program” (World Bank, 2011: 50). The World Bank’s review found some donor representatives thought CCRIF was “going beyond its mandate” (2011: 46) or “going beyond the purpose” (2011: 50), with questions raised over the programme’s “objectives, how it had been approved, and its cost” (2011: 46), specifically querying “who had approved the program” and its “cost and benefits to the region” (2011: 50).

⁷⁹ Caribbean Community Climate Change Centre.

⁸⁰ Technical assistance.

⁸¹ Caribbean Disaster Emergency Management Agency.

The review also notes donor concerns that the programme would be “undermining the capacity of other regional institutions” (World Bank, 2011: 46) and the “risk of duplication or conflict with the DRM⁸² support that they were already providing in the region” (World Bank, 2011: 50). Donors were especially critical of the ECA project, questioning the fundamental rationale for CCRIF developing the project (World Bank, 2011). Some donor representatives argued that “rather than adding to DRM capacity in the region, CCRIF’s program was actually sapping such capacity” (World Bank, 2011: 50), objecting in particular to CCRIF paying McKinsey & Company and Swiss Re for their analysis (World Bank, 2011). The World Bank’s review tactfully recommends CCRIF elaborates publicly on its strategy and choices regarding spending on technical assistance, ensures transparency, consults and meets with donors, and gets feedback from stakeholders on its activities to ensure they are demand-driven and broadly supported (World Bank, 2010b, 2011). The technical assistance programme suggests there is more ‘ownership’ in the beneficiary region compared to IFFIm and TCX, painting a more nuanced picture of the possible spatial distribution of power in IDF initiatives. Although, regardless of their location, CCRIF’s leadership team is composed of financial experts, and hence the decision-making power remains with financial experts.

7.4.2 Financial models

This section turns to analysing the financial models and instruments of IDF interventions, focusing on the politics of knowledge and power. Complex financial modelling sits at the centre of all three case studies, for example pricing and valuation models, financial risk modelling, or exchange rates. CCRIF with its catastrophe, risk, and financial modelling best exemplifies this, and so the section focuses on this case, though it starts with IFFIm and TCX to show the complexity of the financial models in IDF.

The technical complexity of financial mechanisms in IDF further supports the power of financial experts in governing IDF and limits detailed scrutiny to those with particular financial skills and access. Technical complexity surrounds the complex network of actors and flows of money in IFFIm (see Figure 10; Appendix A); the volume of financial intermediation through capital markets with respect to the bonds, and through the World Bank with respect to hedging transactions and the investment portfolio; and the various financial instruments, including bonds, swaps, and long-term legally binding government pledges. CCRIF and TCX’s financial models are similarly complex and technical in terms of the number and variety of actors and

⁸² Disaster risk management.

the flows of money which constitute the financial model (see Figure 11 and Figure 12; Appendix A). Furthermore, IFFIm's financial model could be said to weaken democratic decision-making by foreclosing policy options available to future governments (see also Bigger and Millington, 2020). Once grant agreements, which are both long-term (often lasting 15 to 20 years) and large in scale (usually hundreds of millions of dollars and sometimes over \$1 billion), have been signed, they are irrevocable legally binding commitments on future governments. In fact, this requirement for long-term pledges is not constitutionally possible in some countries, including the US, one of the key reasons its government is not a donor to IFFIm.

TCX's overall financial model and its constituent financial instruments are also complex, limiting accountability and transparency. The map of the flow of money (see Figure 12 in Chapter 4) shows some of this complexity. First, there are a significant number of different actors involved, as shareholders and counterparties, borrowers and lenders, service providers and professional services, and donors. Second, the financial model is composed of a wide range of financial instruments, including equity shares, loans, guarantees, derivative instruments, liquidity instruments, and bonds. Third, many of these financial instruments are complex and can be difficult to understand for outsiders, such as derivatives like forwards and cross currency swaps or the subordinated convertible debt facility provided by donors. Fourth, there are many instances where transactions are intermediated through capital markets or other institutions. For example, some donors hold shares in the TCX Fund through a feeder vehicle in Mauritius, a settlement partner acts as an intermediary in some transactions with end borrowers, TCX hedges local currency bonds with its shareholders which back-to-back issue bonds to market counterparties, and TCX's liquidity, trading, and hedging portfolio all involve market counterparties. This multi-layered financial complexity supports financial experts' power and creates a high barrier of financial knowledge to engage critically with TCX's intervention.

Similarly, the technical models at the heart of CCRIF are both financial and complex, with implications for who can and can't engage. The World Bank, which led the design work, characterises the design as "particularly challenging, as CCRIF was the first multi-country, multi-peril pooled catastrophe risk insurance facility in the world" (World Bank, 2012: 8). The financial modelling underpinning CCRIF is described as "sophisticated financial engineering" (World Bank, 2008: 4), using "state-of-the-art risk modeling techniques" (World Bank, 2008: 3). Specifically, the design "required extremely sophisticated modeling of hurricane and earthquake risk in the Caribbean to develop the HLEM [hazard and loss estimation model] that would underpin the pricing of CCRIF's policies and its financial sustainability" (World

Bank, 2012: 8). A typical catastrophic risk model has five ‘modules’: hazard, exposure, vulnerability, damage, and loss (see Figure 31 and discussion below; on catastrophe models see also Johnson, 2013). Modelling work also included “(i) physical risk mapping and vulnerability estimation for the Caribbean islands; (ii) innovative actuarial analysis of the probability of tropical storm and earthquake events of different intensities and insurance pricing studies; (iii) evaluation of financial structures and instruments and their associated costs for pooled risk financing and insurance; and (iv) assessment of options for the institutional and legal structure of the Facility” (World Bank, 2012: 8). This specialised and technical modelling, conducted by experts, rests on expertise in financial, risk, actuarial, and legal matters, as well as meteorological. The complexity of these financial models positions financial experts at the centre of defining the intervention’s outcomes. Furthermore, it also limits engagement and scrutiny from other actors who do not have the requisite technical knowledge to understand or critique, limiting wider transparency and accountability.

Figure 31. Typical structure of catastrophic risk models (Source: World Bank, 2008)

Box 3.1. Catastrophic Risk Models

Hazard module: The hazard module defines the frequency and severity of a peril, at a specific location. This is done by analyzing the historical event frequencies and reviewing scientific studies performed on the severity and frequencies in the region of interest. Once the hazard parameters for each peril are established, simulated stochastic event sets are generated that define the frequency and severity of thousands of simulated cyclone or flooding events. This module can analyze the intensity at a location once an event in the simulated set has occurred. This module models the attenuation/degradation of the event from its location to the site under consideration and evaluates the propensity of local site conditions to either amplify or reduce the impact.

Exposure module: The exposure values of “assets at risk” are estimated either from available secondary data sources or are derived from the distribution of population. This “proxy” approach is used when the preferred specific site-by-site data are not available. Based on these data, the module computes the value for all types of exposures as a product of multiplication of the area of total building inventory and the average replacement cost per unit of inventory.

Vulnerability module: The module quantifies the damage caused to each asset class by the intensity of a given event at a site. The development of asset classification is based on a combination of construction material, construction type (say, wall and roof combination), building usage, number of stories, and age. Estimation of damage is measured in terms of a mean damage ratio (MDR). The MDR is defined as the ratio of the repair cost divided by replacement cost of the structure. The curve that relates the MDR to the disaster (earthquake or hurricane) intensity is called a vulnerability function. Each asset class and building type will have different vulnerability curves for each peril.

Damage module: To calculate losses, the damage ratio derived in the vulnerability module is translated into a dollar loss by multiplying the damage ratio by the value at risk. This is done for each asset class at each location. Losses are then aggregated as required. Government assets or assets that are likely to be financed with government resources can be easily isolated and an assessment of financial needs for reconstruction calculated. Based on the likely timing for reconstruction, these costs can be ventilated between short-, medium-, and long-term financial needs.

Loss module: The module estimates the losses from the damage distribution. When dealing with government losses, this module estimates relief and recovery costs and tax revenue losses.

The parametric insurance and its underpinning modelling are presented as technical and politically neutral; however, they determine the intervention's (political) outcomes. In its first annual report, for example, CCRIF states two of the key reasons for a parametric facility are:

“calculation of payouts is *totally objective*, based on a few simple input parameters published widely in the public domain from the globally-mandated body responsible for estimating those particular parameters, and a set of formulae which form part of the policy; and

The risk, which drives policy pricing is uniformly defined (i.e. *there is no subjectivity in the definition of the risk.*) Parametric policies are both priced and triggered on the basis of outputs from complex catastrophe risk models. These models are based on historical hurricane and earthquake activity records and estimated losses for these past events. The historical record, and scientific research, provide the foundation for forward projections of hurricane and earthquake activity per country, thousands of years into the future, creating a country risk profile for each member nation”

(CCRIF Annual Report 2007-2008: 7; emphasis added)

However, the parametric facility is deeply political. Each of the technical steps in setting-up a contract (discussed next) – modelling hazard, estimating loss, estimating government loss, creating a hazard index, and defining a contract – requires choices, such as what to include and exclude from the modelling, what techniques to use to model and estimate hazard and loss, what data and assumptions to input into models, or how to structure the modelling. For example, which hazard data and history to include in the hazard modelling, or what weighting to assign to measurement locations across the country which trades-off the value of cities, ports, tourist centres, and so on. These choices all ultimately determine CCRIF's outcomes, meaning the models underpinning CCRIF are deeply political.

Zooming in shows how, at each step in the modelling and contracting, experts make seemingly technical decisions which are incorporated into the models, become contractual rules (see Erikson and Johnson, 2020), and have political effects. The first step to make a parametric insurance contract is modelling the hazard, in this case hurricanes or earthquakes (for more on these steps, see the preparation work on CCRIF's design in World Bank, 2007a). Specifically, estimates of the frequency and intensity of hazards are made through stochastic modelling to model the relationship between the hazard's intensity and the probability of that intensity being exceeded in a particular location – technically called the hazard exceedance

curve. Intensity measures, in wind speed for hurricanes and ground acceleration for earthquakes, are key drivers of the cost of insurance coverage in CCRIF. The second step is estimating loss. Damage functions estimate the relationship between the intensity of a hazard and the expected damage, taking into account the different types of infrastructure and buildings found in the country. In CCRIF, the damage functions are based on insurance claims data and engineering-based damage modelling. These damage functions are aggregated together to model a composite damage function at a country level. Step three is estimating the impact of damage on government accounts. Modelled government loss includes the effect on tax and other revenues, as well as expenditure on fixing government property and emergency response. The expected damage, calculated in the previous step, is used to estimate the expected impact of a hazard on a government's accounts, also taking into account a country's tax system, main revenue sources, and hazard exposure in areas where government property and economic activity are concentrated. For each country, a government deficit loss curve is modelled, connecting hazard intensity to estimated government loss. Fourth, a hazard index is created. Specific measurement locations are determined for a country, to represent key areas of economic activity and hazard vulnerability. During a hazard event (a hurricane or earthquake) the hazard values measured at these points (wind speed or ground acceleration) are combined based on a pre-determined weighting to capture the loss potential of economic activity near each measurement point. This step tries to match the parametric hazard trigger to actual impacts in a country. Fifth, member governments select attachment and exhaustion points for their insurance contracts. The attachment point is the value of the hazard index which triggers the contract. The exhaustion point is the hazard index value above which the payout doesn't increase beyond the policy limit. An index curve is modelled to connect the hazard index to the desired coverage for loss to government accounts. The cost of the insurance premium is driven by the chosen attachment and exhaustion points, and the calculated probability of the hazard index exceeding the attachment point, triggering a payout. Finally, the final parametric payout curve is modelled and set in the contract. This captures the relationship between the hazard index and the payout to member governments. Along this process of making a parametric contract, experts are making myriad detailed decisions and judgements in the modelling which ultimately determine the outcomes of interventions, including over the distribution of benefits, costs, and risks.

At a higher level, the design of interventions in terms of their financial instruments sets the overall parameters within which an intervention can operate, which has significant political effects including determining the distribution of risks and benefits. For example, the choice to design the CCRIF facility around a parametric (re)insurance model has significant distributional consequences. As previously discussed, parametric policies are not based on

actual damage but an index, underpinned by financial and meteorological models to estimate and calculate hazard, damage, and loss. Importantly, it is CCRIF's member governments which are exposed to the basis risk that the model may under (or over) estimate actual loss. Instead, CCRIF could have been designed such that payouts are triggered and the amount determined, after a disaster, based on actual severity and declared government losses. In the design process to make this choice, the cost-benefit analysis of different financial structures was influenced by which costs and benefits are included, for whom, and the selected points of comparison. Furthermore, the choice of a parametric (re)insurance model determines CCRIF's disaster coverage, namely hurricanes and earthquakes. Data and modelling constraints meant it was financially viable to purchase parametric policies from reinsurance providers for those risks, rather than flooding or drought (both later requested by member governments), or even volcanoes and tsunamis where catastrophic risk models were still under development at the time.

Discussion of a new drought product in CCRIF, and a short example from the African Risk Capacity's⁸³ drought insurance, illustrates some of the political choices incorporated into financial models and their political effects. The purpose of CCRIF's new drought model was to "identify agricultural drought events [...] and assessing the resulting losses due to reduced yield" (CCRIF Annual Report 2016-2017). The drought product illustrates how, in parametric policies, it is financial and meteorological experts who have the power to define what constitutes drought, calculate whether there has been a 'drought event', and (pre-)determine the associated impact on crop yields. The necessity of a parametric policy and its underlying complex modelling must not be taken for granted. One might ask whether it is necessary to have a complex technical model to determine whether a severe drought did or did not occur. Given the concern is widespread crop failure and reduced yields, it seems there might be a simpler, more accurate way to identify droughts, notably drawing on widely available information about whether farmers were or were not able to harvest any crops, alongside the amount of precipitation and temperatures. Here, a well-known example in the field is informative.

The failure of the model underpinning the African Risk Capacity's (ARC) drought insurance in Malawi in 2016 vividly highlights the political effects of technical financial models in IDF (see also Johnson, 2021b). For the 2015/2016 season, the Malawi government purchased drought insurance from ARC, paying a \$4.7 million premium (ActionAid, 2017). The policy terms were

⁸³ Of note, the ARC was inspired and influenced by CCRIF, with some key individuals from CCRIF involved in its design and set-up.

to trigger if over 1.39 million people were affected and response costs exceeded \$58.58 million, and the payout was set as a proportion of the cost over this threshold, up to a maximum of \$30 million. Malawi then suffered severe drought, affecting 6.7 million people's food security, and a national emergency was declared in April 2016. Despite this, the ARC policy did not trigger as the model estimated only 20,594 people had been affected (ActionAid, 2017). However, ARC's model was seriously flawed. Importantly, the technical model assumed farmers planted 'local' open-pollinated maize (120-140 days growing time) whereas the majority actually planted short-cycle hybrid maize (90-100 day growing period) (ActionAid, 2017; ARC, 2016; OPM, 2017). Changing the model's assumptions on maize variety would have increased the modelled number of people affected to 2 million, crossing the threshold for a payout. While maize variety was an important factor, other issues in the model were also revealed, such as temperature. Following significant media attention and public pressure, seven months after a national emergency was declared, ARC eventually decided in November to issue a payment of \$8.1 million (ARC, 2016), made in January 2017, but this is considered too little too late to avert the disaster or substantially contribute to response costs estimated at \$395 million (ActionAid, 2017; OPM, 2017). ARC has subsequently quietly made another basis risk payment of \$2.4 million to Mauritania (Johnson, 2021a, 2021b).

7.4.3 Conclusion: The rule of financial experts

Drawing on Mitchell's (2002) title 'The rule of experts', I argue these findings suggest financial experts rule IDF, rather than states or beneficiaries. Financial experts, drawing on financial expertise, are at the centre of governing IDF interventions. While some not overtly financial state actors play a role, it is those with financial expertise who hold the strings, and ultimately determine an intervention's outcomes. Analysis of the case studies shows interventions are designed, governed, managed, and operated by financial experts. Important decision-making is delegated to private financial actors. An important implication of this is technocratic financial management of IDF interventions. Additionally, the interventions are oriented towards financial market actors. This rule of financial experts has political effects.

Relatedly, IDF's financial models and instruments occupy a political role at the centre of IDF interventions. A range of financial models support the interventions and, importantly, determine their outcomes, including the distribution of material rewards, costs, and risks. The modelling is complex and technical. This positions financial experts at the centre of defining the outcomes of interventions. It also means there is a considerable financial expertise barrier for understanding what's going on and critically evaluating the interventions, which limits

political engagement. Furthermore, the planners' emphasis and insistence on the financial model's sophistication and 'state of the art' techniques has depoliticising effects, glossing over the reality that the models imperfectly capture the object they are modelling. While financial experts, their expertise, and the financial models are framed as neutral and technical, they have social, political and economic effects, shaping the distribution of resources and power.

The rule of financial experts has two important political consequences: to limit public political control, and to financialise. First, the rule of financial experts limits public democratic political control and accountability in development. Technocratic financial management by financial experts weakens public political control and limits accountability. Technocratic financial management is made possible through rendering technical which positions experts as neutral providers of technical knowledge and expertise, and by shifting important decision-making to private financial actors out of public democratic processes and scrutiny. Furthermore, IDF interventions operate through complex financial models and financial instruments which position financial experts to influence and determine outcomes, limit external public critical engagement and have depoliticising effects. This further weakens transparency and public democratic political control over an intervention's outcomes.

Second, the rule of financial experts has the political effect of expanding the power of financial actors and knowledge in development. In IDF, financial experts, drawing on financial expertise, are at the centre of designing and governing development interventions. Furthermore, the central role of financial models and financial instruments, positions financial experts in a powerful position derived from their knowledge to determine the distribution of material rewards and costs. Together, this means there is a change in knowledge and power in development, shifting towards financial expertise and experts. Financial actors have increased discursive power to influence and shape development agendas, and material power to determine the outcomes of development interventions, specifically orienting benefits towards financial market actors.

7.5 Conclusion

This chapter analysed the techno-financial politics of IDF and knowledge and power in IDF, drawing on foundational work on the politics of international development (Li, 2007; Ferguson, 1994; Mitchell, 2002). The two key arguments are briefly summarised here, together with a short reflection on political challenge to IDF, or lack thereof.

First, I proposed the concept of ‘rendering financial?’. I argue IDF represents a technical and a financial solution to a development challenge. Building on Li’s (2007) concept of ‘rendering technical?’, I suggest ‘rendering financial?’ to capture how development is financialised – the problematisation process bounds a financial domain, a financial problem is identified, and a financial solution designed – and the interventions are technical. Rendering financial is one way of rendering technical. The concept helps explain why IDF interventions fail on their own terms (as in Chapter 6), and yet are still normalised and widely pursued. Rendering financial has two important political consequences. First, rendering financial renders the intervention apolitical and has de-politicising effects. Second, rendering financial also financialises, a highly political process which expands the financial sector’s power.

Second, I argued financial experts rule IDF. Financial experts, drawing on financial expertise, are at the centre of governing IDF interventions. Relatedly, IDF’s financial models and instruments occupy a political role at the centre of IDF interventions. The rule of financial experts in IDF has two important political consequences. First, it limits public political control and accountability in development. Second, it expands the power of financial actors and knowledge in development.

Finally, I reflect on the lack of political challenge (so far) to IDF. Li (2007) suggests one consequence of development interventions failing can be to build critique and, ultimately, a political challenge. Despite failure on IDF’s own terms, moments of serious political challenge are conspicuously absent (an area for future research should they materialise). Rendering financial and the rule of financial experts appear secure. The question is why? Here, I can only offer some suggestions. In Li’s (2007) account, critique emerged from the lived experience of villagers. It could be that IDF interventions need more time, although this is unconvincing as the cases in this analysis already launched in the mid-2000s giving them over 15 years. Perhaps, as financial solutions, IDF interventions are too many steps removed from their target beneficiaries, intermediated by multiple (financial) actors, and so less visible. Recipients of Gavi’s vaccines do not necessarily see how the dose was financed, citizens in the Caribbean do not pay premiums or receive payouts from CCRIF, and end borrowers are not party to TCX’s derivative transactions. Alternatively, it could be that the opaque structure and complexity of IDF’s financial models is limiting political engagement. Relatedly, the wider political situation and power of financial actors could be working to contain any contest to financial knowledge and expertise. Many of these reasons – distance from beneficiaries, complexity, financial expertise – are connected to the financialised nature of IDF interventions, further underlining the deeply political effects of the financialisation of development. They are

also choices, which could be made differently, something I turn to in the next and final chapter (Chapter 8).

Chapter 8. Conclusion

This PhD has made an empirical, theoretical, and methodological contribution to critical development geography and associated research areas. It has contributed a rich empirical investigation of innovative development finance, focusing on three leading case studies (Chapter 4), which reveal significant economic and political costs not acknowledged by supporters (Chapter 6 and Chapter 7). Conceptually, it has made a modest contribution to understanding IDF as a financial solution, constituted of a bundle of financial instruments making three core development claims (Chapter 5). Theoretically and empirically, the analysis has contributed to the wider financialisation literature, particularly to understanding the mechanisms of financialisation, the economic and political consequences of financialisation, and specifically the study of the financialisation of development (Chapter 5, Chapter 6, and Chapter 7). Finally, methodologically, this PhD has developed a powerful ‘follow the money’ methodology, which to my knowledge has not yet been done in this way before. The thesis makes the case for adopting a follow the money approach and shows how money can be followed (Chapter 3), as well as providing a demonstration of the value of the approach (Chapter 6 and Chapter 7). In these conclusions, I briefly present a summary of the PhD’s main arguments and findings, and then draw out wider implications for development agendas and research. Next, I outline some alternatives to each of the case studies I have analysed, complementing earlier critical analysis. As valuable as critique can be, it can perhaps be made more effective when placed next to alternative solutions and ways of conceptualising the problem. I set out both ‘pragmatic’ alternatives, which are imaginable and achievable within ‘mainstream’ approaches, as well as more radical re-conceptualisations. To end, I briefly look ahead to potential positives and areas for future research.

8.1 Summary of findings

This PhD set out to critically analyse innovative development finance. It traced the emergence of the concept in the context of the MDGs in the early 2000s, through to becoming an established element of financing for development agendas by the late 2000s, framed primarily as a solution to a ‘financing gap’. In the post-2015 SDG era, IDF has become a core part of development finance, part of a broader turn to private finance in development and the financialisation of development. Conceptually, IDF can be understood as a financial solution to a development challenge, made up of a bundle of market standard financial instruments

with three core development claims: to leverage private finance, manage risk, and create markets.

Each of the case studies – IFFIm, CCRIF, and TCX – are apparent success stories. IFFIm had secured \$6.5 billion in government pledges by 2019 and disbursed \$2.9 billion to Gavi by frontloading aid through bonds for immunisation, with substantial immediate benefits to any children that Gavi would not otherwise have been able to vaccinate. Donor decisions to fund IFFIm have contributed to saving an estimated 2.9 million of the 14 million lives saved by Gavi (IFFIm, 2020). Similarly, CCRIF provides disaster insurance to 16 member governments across the Caribbean and Central America. CCRIF had rapidly provided \$139.5 million in 38 payouts by 2019 to its members at times of great need after hurricanes, earthquakes, and extreme rainfall have struck, funding essential services and recovery. For its part, TCX had built a primary portfolio worth \$3.4 billion by 2019 and supported \$7.4 billion of development loans so that end borrowers can access financing in their local currency, reducing their exposure to currency volatility, something which is taken for granted in many parts of the world. Without losing sight of these significant contributions to global health, disaster response, and access to finance, it remains important to examine the financial models' hidden realities and opportunity costs. Behind the success and celebrations, a detailed examination of the initiatives and their financing models revealed a more complex picture. The financialisation of development, which IDF is a part of, has important (geo)economic and (geo)political consequences.

Scrutinising the financials of IDF, by following the money through each case study, revealed that these initiatives only partially meet their development claims. First, instead of leveraging private finance, resources are peeled off by private actors, and the financial models are fundamentally reliant on public finance. While private finance resources are central, there is no mobilising of additional private resources for development, in other words no aid additionality. Second, initiatives provide limited, not comprehensive, risk management in support of development, although this is uneven – the intended beneficiaries remain subject to considerable risk, while the financial models incorporate prudent risk measures to protect financial actors. Furthermore, the initiatives actually add financial risks to the global financial system, within which poorer countries, places, and people are especially vulnerable. Third, IDF initiatives support financial market expansion, more than creation. Established financial market participants are the biggest beneficiaries, and these markets are spatially uneven, concentrated in financial centres in the Global North. Finally, there are significant opportunities for private profit in IDF. Material resources are distributed to private financial actors through a range of mechanisms at a significant scale, not only as part of the 'win-win' promise to

investors, but also less visibly to a substantial assemblage of financial intermediaries. Together, these findings challenge some important claims of IDF. They point to a development finance model which is expensive for donors and beneficiaries, fundamentally relies on public finance without creating aid additionality, and offers significant private profit opportunities, distributing material rewards in a spatially uneven pattern

Analysing the techno-financial politics of IDF and knowledge and power in IDF shows initiatives have (at least) three important political consequences. First, IDF interventions are both technical and financial. 'Rendering financial' captures this process of financialising development where a financial domain is bounded for intervention, a financial problem diagnosed, and a financial solution designed. As a way of rendering technical (Li, 2007), rendering financial de-politicises the intervention. Second, IDF is ruled by financial experts, drawing on financial expertise, and their financial models. This limits political control and accountability in development. Third, both rendering financial and the rule of financial experts expand the power of the financial sector and financial actors, in other words they financialise development, a deeply political process.

8.2 Wider implications

The analysis and arguments set out in this PhD have implications for wider development agendas, poverty, and inequality. In the context of explicit social goals, IDF initiatives are delivering non-trivial private profit. Rather than being a win-win situation, this comes at the expense of donors and beneficiaries in a number of ways. IDF initiatives are expensive, and this limits potential benefits for intended beneficiaries, while also draining away donor funding from other social and development programmes, which might have more direct benefits for poor people and countries. The material rewards and costs of IDF are distributed unequally, connecting to wider inequality in society. Furthermore, these findings mean IDF is not a solution to development's 'financing gap' or a viable approach to delivering a shift 'from billions to trillions'. While private financial resources are involved, there is no aid additionality; instead, resources are peeled off as they circulate through IDF. To the extent that ending extreme poverty and achieving the SDGs requires mobilising more funding, IDF is not the answer. As the next section will show, there are alternatives.

Furthermore, there are political implications for development agendas and outcomes. The process of rendering financial excludes the possibilities of progressive structural transformation with a meaningful redistribution of resources and power, and obscures political

choices and inequalities. IDF interventions are intermediated by and contingent on financial markets, governed by financial market imperatives, and oriented towards financial actors. Furthermore, the rule of financial experts positions financial and private actors at the centre of leading and governing development agendas. Technocratic financial management, shifting important decision-making to private financial actors, and the financial model's technical complexity limit democratic public political control and accountability of development agendas and programmes. Politically, then, IDF is part of transforming development, with financial actors, logics, tools, and knowledge at its centre. IDF is also continuing in the footsteps of international development agendas which have long been criticised for being led by and to the benefit of the Global North, with implications for inequality and justice.

Finally, the analysis has implications for research on the financialisation of development and financialisation more broadly, including empirically, methodologically, and theoretically. First, materially, the financialisation of development distributes resources to financial actors, both as investors and intermediaries, through a range of financial mechanisms. Following the money precisely revealed who benefitted, by how much, through what mechanism, and where money was peeled off. Second, politically, the analysis found the financialisation of development de-politicises, weakens political control and accountability, and expands the financial sector's power. Third, the research also revealed that IDF has a spatially uneven footprint, with wider implications for economic and political geographies. Economically, material resources are distributed unevenly as money circulates through IDF initiatives, concentrating in financial centres in the Global North. Reinforcing this, the pattern of market expansion which IDF initiatives support is similarly spatially uneven. Politically, power and decision-making in IDF are also spatially uneven. The rule of financial experts has a geography, also focused largely in financial centres in the Global North. Together, these shape uneven economic and political geographies of development, which enhance existing inequalities. Several of these arguments align with established findings in the literature on the uneven geographies of financialisation, but here I provide additional empirical evidence, grounded in precise and detailed research. Methodologically, then, follow the money can be a powerful approach for examining the financialisation of development specifically, as well as financialisation more broadly. Follow the money analysis has provided theoretical and empirical insights on the mechanisms of financialisation and its economic and political consequences, answering some of the 'so what?' of the financialisation of development.

8.3 Alternatives

This section takes up the question of alternatives, in a world in which development finance is constrained and where dominant discourse of a ‘financing gap’ and scarce public resources suggests there is no alternative. This complements previous chapters’ critical analysis and helps draw out an additional layer of contribution (see diagram in Figure 32). For each case study, I illustrate that there are both opportunities to tinker with IDF within broadly ‘mainstream’ parameters (which could be described as pragmatic), and more radical alternatives. I first outline ideas for alternative financing models, in other words I suggest some technical changes. These offer moderate improvements on IDF initiatives, delivering many of the benefits with fewer costs. Second, I outline a set of alternatives which more fundamentally reconsider the political issues at the heart of IDF initiatives. Some of these involve major political changes in the distribution of power and resources globally. For each case, these proposals identify the problem differently and, therefore, offer a different accompanying solution. These alternatives also highlight how modest IDF initiatives are (see Li, 2007), and point to the possibility of alternatives to development. To end this reflective section, I zoom out to raise the possibility of alternatives to the IDF agenda itself.

Figure 32. Layers of critique – Examples of indicative contributions

Critique	Chapter 6	Chapter 7	Chapter 8
Technically sub-optimal	Interventions fail on own terms • No aid additionality • Limited risk management • Market expansion (not creation)		Alternative financial model (same problem) • IFFIm: Donor governments issue bonds • CCRIF: Joint reserve mechanism • TCX: DFIs lend in local currency
Opportunity costs	Financial opportunity costs • Fundamentally funded by public finance • Additional financial system risk	Political opportunity costs • De-politicises intervention • Limits political control and accountability	Alternative problem diagnosed with different solution • IFFIm: high vaccine prices – intellectual property right law reform • CCRIF: emergency response supplies – ready stock in region • TCX: currency volatility – capital controls
Reproduce structural inequality	Material rewards unequal • Significant opportunities for private profit • Spatially uneven, concentrated in financial centres in Global North	Interventions financialise • Expands power of financial sector • Expands power of financial experts and knowledge	Alternative to IDF • Tax-based contribution from private finance • Meaningful redistribution of resources and power
No engagement with alternatives to development			Alternative to development • Focus on climate change • Degrowth movement

An alternative financial model for IFFIm’s frontloading is for donor governments to borrow through long-term bonds themselves to fund Gavi directly. The UK (\$3.0 billion) and France (\$1.9 billion) are the largest donors representing 75% of the \$6.5 billion in pledged

commitments by 2019. At the time of IFFIm's inaugural bond issuance in November 2006, the UK government ten-year bond yield stood at 4.55% and the French yield at 3.74%. Both of these countries' ten-year bond yields fell over the period to reach lows of 0.58% for the UK and -0.34% for France in late 2019. These borrowing costs are lower than IFFIm's: the average yield of IFFIm's fixed rate bonds (issued between 2006 and 2013) was 5.12%, and the interest on IFFIm's floating rate bonds (issued between 2013 and 2019) was a margin of 0.15% on average plus three-month USD LIBOR which averaged 1.08% over the period (with a range from 0.22% to 2.82%). So, the alternative, whereby governments borrowed through bonds, could deliver the same frontloading effect, allowing the bond issue proceeds to be disbursed to Gavi immediately, and interest and principal repayments to be made over a long time period. The government bonds could be structured to replicate the grant schedule in IFFIm where governments make roughly equal payments annually, for example through an instalment note or even a zero-coupon instalment note with an issue price a little below 100%. Not only would this financing model deliver frontloading, but it would do so at a lower cost of funding, without necessarily resulting in debt fuelled dynamics (where new bonds are issued to repay previous ones). Such an approach would also be more open to democratic scrutiny; although it would not solve the issue of concentration around existing financial centres and capital markets, nor their intermediation of the economic geographies of global health and development.

Coming at this from a different perspective, a different identification of the problem as 'investment gap' would have different solutions which do not draw on funds intermediated through capital markets. The problem of access to immunisation for children in low-income countries could be identified as one of (artificially) high pharmaceutical prices (see for example Christophers, 2020, or the Médecins Sans Frontières Access Campaign), a lack of healthcare system infrastructure, or a limited ability for low-income countries to raise sufficient taxes (see for example the Tax Justice Network's work). Solutions to these problems might involve reform to intellectual property right law, grant funding or direct payments for health centres and training medical staff, or reform to international tax systems and tackling capital flight from low-income countries.

CCRIF could be structured as a straightforward joint reserve mechanism across Caribbean and Central American governments, providing insurance to member governments and, importantly, pooling risk across them. However, these insurance contracts could be backed by CCRIF's own reserves – a key difference to transferring risk to reinsurers and capital markets. CCRIF already retains the first layer of risk, and under this model would also retain higher risk layers. These reserves could be capitalised by both members and donors, as under

the existing model. The insurance contracts could even remain parametric, delivering fast payouts. This could significantly reduce costs, saving the \$132 million spent on reinsurance premiums as well as expenses on catastrophe swaps and bonds, limiting the resources peeled off to financial institutions in the Global North. Such a financial model would still not, however, comprehensively manage risk as member governments would, for example, still face basis risk with parametric contracts. Furthermore, this model could reduce CCRIF's claims paying capacity, which, depending on the exact terms, could mean it being unable to meet claims in an unprecedented extremely catastrophic season. However, this might be a chance worth taking for all the years when it could comfortably meet claims, especially given the payout would in any case be modest relative to such an extreme scenario. Moreover, as with the IFFIm alternative, this model could be more open to democratic control and accountability.

Alternatively, for CCRIF, a different problem could be diagnosed to support disaster recovery. The identified problem might be the high cost of government access to external debt finance in the wake of disasters, difficulty accessing emergency response supplies quickly, or low resilience of buildings which are being destroyed in the first place. Accompanying alternative solutions could be a public or multilateral facility to provide grants or inexpensive loans to (small island states) governments specifically in the aftermath of disasters; a ready stock of disaster response supplies such as food and medicine, or machinery to clear debris in the region; or grant funding to support a change in building codes (where relevant) for essential structures such as hospitals, the installation of defences, or local capacity in meteorological monitoring and disaster-related modelling (for example, of flooding).

At a bigger picture level, the CCRIF case also illustrates how more radical options are excluded, and points to the possibilities of engaging with alternatives to IDF as well as alternatives to development. Instead of focusing on disaster response and government financial vulnerability, other problems could have been diagnosed to address the root causes of disasters more directly. It is worth highlighting that many disaster-related issues are closely interconnected with development and climate change, and need to be integrated (Kelman, Gaillard and Mercer, 2015). In this context, alternatives might be tackling vulnerability to disasters, which is socially and politically produced; or climate change, which is affecting hurricane activity, rainfall, flooding, and drought, particularly for island states (WMO, 2022; Kelman, 2017). Alternative solutions might include policies and programmes to reduce vulnerability, including addressing poverty and inequality through meaningful redistribution of resources and power; and global policies to limit emissions and cut fossil fuel use (see for

example the IPCC's⁸⁴ sixth assessment report, 2022a, 2022b), or move away from growth-oriented economies (see for example the Degrowth movement, Demaria and Kothari, 2017, Buen Vivir, or Raworth's doughnut economics, 2017). While CCRIF is an illustrative case, the alternative to IDF of meaningful redistribution or alternatives to development are relevant well beyond (see for example Demaria and Kothari, 2017).

For TCX, as already noted (in Chapter 7), there is an obvious alternative financial model to support long-term development lending in local currency, and that is simply for the DFIs to provide long-term loans denominated in local currencies. This addresses the currency and maturity mismatch of development loans, and reduces complexity. However, it does little to change broader political structures, with European DFIs still at the centre of providing financing around the world. Alternatively, the problem could have been diagnosed as insufficient volumes of domestic capital, across both government and commercial financial institutions; the volatility of many countries' currencies, particularly against the US dollar and euro; or the dominance of the US dollar and euro in development lending. In turn, possible solutions could include a transfer of financial resources to governments in the Global South or financial institutions; the introduction of capital controls to prevent capital flight and limit depreciation of currencies, or altering global trade patterns, notably of commodities; or a significant change to the international monetary and financial system which would decrease the hegemony of the US dollar as the global reserve currency.

At a higher level, there is also the question of alternatives to the IDF agenda. To the extent that IDF is fundamentally trying to draw private finance into supporting development (to fill a financing gap), there might be positives to build on. For example, private finance could make a large contribution to social outcomes by paying more tax. This would include across associated issues of capital flight, tax evasion, tax avoidance, tax havens, and tax competition (see for example the Tax Justice Network's work; the Global Alliance for Tax Justice's work; Tørsløv, Wier and Zucman, 2022), which mean governments in the Global South lose revenue⁸⁵. To illustrate the scale of the issue, the Tax Justice Network estimates countries worldwide are losing \$483 billion in tax a year, which would cover the cost of vaccinating the entire world's population against COVID-19 three times over (TJN, 2021). Lower-income countries are hit hardest, with estimates they collectively lose the equivalent of 48% (\$40 billion) of their public health budgets (TJN, 2021). Estimates suggest tax losses in lower-

⁸⁴ Intergovernmental Panel on Climate Change.

⁸⁵ There are parallels with Hickel and colleagues' work on broader resources draining from the Global South to Global North through unequal exchange (see for example Hickel, Sullivan and Zoomkawala, 2021; Hickel et al., 2022).

income countries exceed aid receipts, with lost income tax revenue estimated at \$190 billion to \$280 billion in 2012 on wealth held offshore, which was approximately twice annual ODA (TJN, 2012). Different estimates from 2015 suggest lower-income countries lost \$185 billion in tax revenue, which was double annual inflows to all African economies together (Tørsløv, Wier and Zucman, 2022; Karwowski, 2022). Raising more tax revenue, possibly with a redistributive system across countries, could fill the ‘financing gap’ with private resources but under public (sometimes democratic) control, which could be a more promising road to just socio-economic development.

8.4 Looking ahead

Critically analysing IDF has uncovered many important costs, however, looking forward are there any positives to draw out? Here, I try to offer some glimmers of hope. Increased political attention to development finance over the last two decades (documented in Chapter 2) may be a positive in the context of constrained development funding, where ODA is widely considered insufficient to fund the SDGs or many other models of social and economic transformation. This political attention could pave the way for more critical attention to development finance, which is important as the financial model, in many ways, determines social, economic, and political outcomes. IDF could also be a signal of wider opportunities to raise private financial resources for development. IDF has attracted the attention of many private sector actors, including financial institutions, to development agendas and poverty, and these actors and organisations hold vast financial resources and political power. Of course, they are also pursuing their own interests, so the challenge may be to harness this potential without the finance tail wagging the development dog. There may also be some positives if IDF is connected to a wider shift towards more concern with social and environmental issues in the private sector, for example meaningful Environmental, Social, and Governance measures; ideas of capitalism with a conscience; the triple bottom line; or stakeholder capitalism, although none of these propose major structural transformation. Finally, there may be an opportunity to re-centre early more radical tax-based proposals in development finance, which were discussed when IDF emerged.

This research project points to several areas for further research. First, of course, there are many stones left unturned in the study of IDF. For example, there is scope to pursue empirical work on some of the social consequences of IDF for targeted beneficiaries, beyond a follow the money approach, to complement this PhD’s focus on the economics and politics. Furthermore, should any arise, it would be interesting to study future moments of political

challenge to IDF. Second, there are more dimensions of the financialisation of development to explore. This could include through a follow the money approach applied beyond IDF, or examining the latest models of development finance in the post-2015 SDG era, reflecting that IDF emerged already in the 2000s and development finance will have evolved. Indeed, if some of IDF's characteristics have been subsumed into wider post-2015 development agendas, then these require close scrutiny in the light of this research. Third, the follow the money approach opens a wide range of research avenues. Empirically, there are many areas of research where the study of the material (re)distribution of resources is relevant. For example, political ecology work on new conservation funding models, studying the financial aspects of the climate change response, or investigating the operations of national health systems. Additionally, theoretically, the approach can provide insights in these areas and others on social and economic relations; financialisation, specifically the mechanisms and consequences; and risk in society.

The choice and design of how to finance development agendas has important material, political, social, and spatial consequences. The financial model is central to determining outcomes. The criticality of some of these financing models in health were brought sharply into light by the COVID-19 pandemic, with debates about how to finance the research and delivery of vaccines, and how to ensure global and equitable access. But these questions are not new, and a discussion over them should not be restricted to COVID-19, or vaccines, or even global health. We must ask whether the costs of 'innovative' financing mechanisms are worth it. More broadly, the financialisation of many aspects of social and economic life need close examination to reveal the material, political, social and spatial consequences, often hiding in plain sight, in particular precisely how, by how much, by who, and where resources are peeled off.

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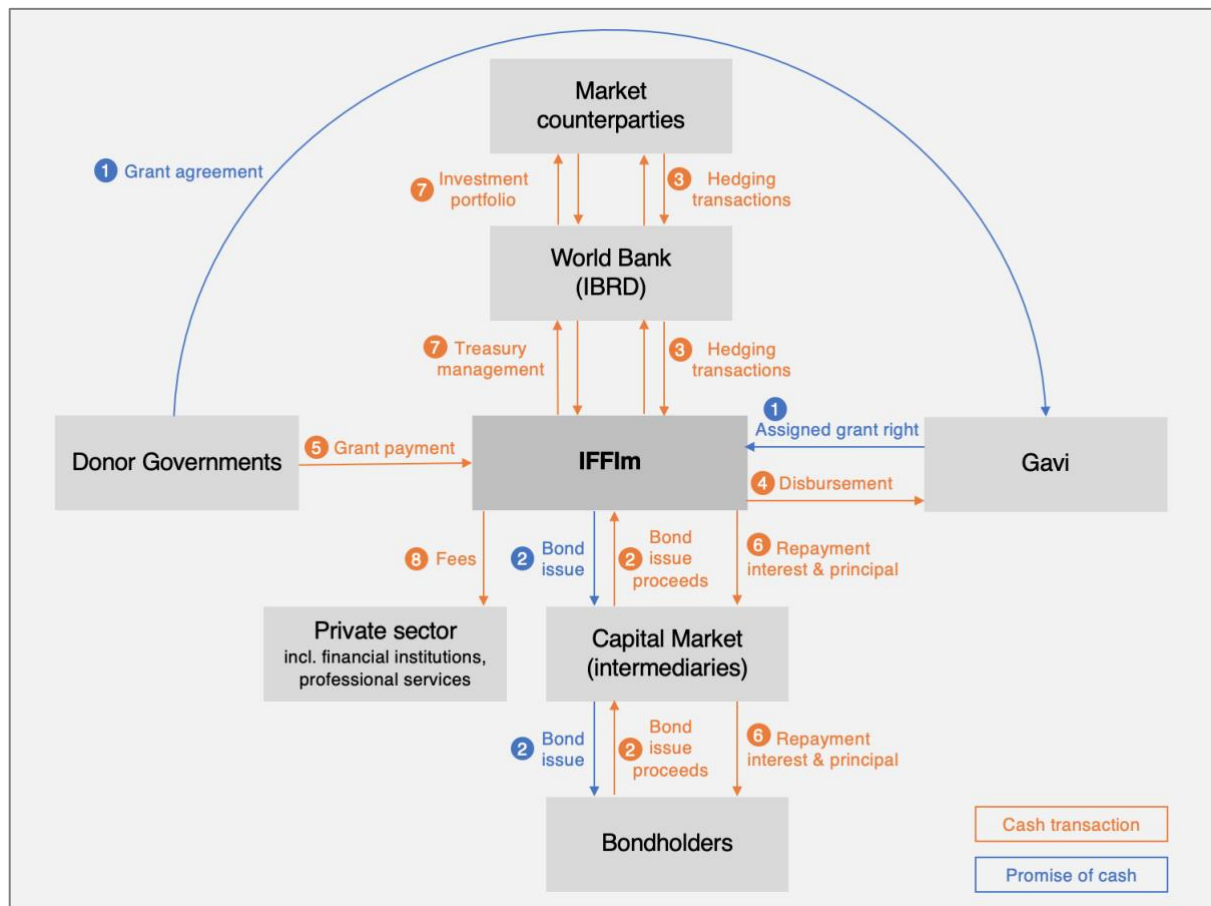
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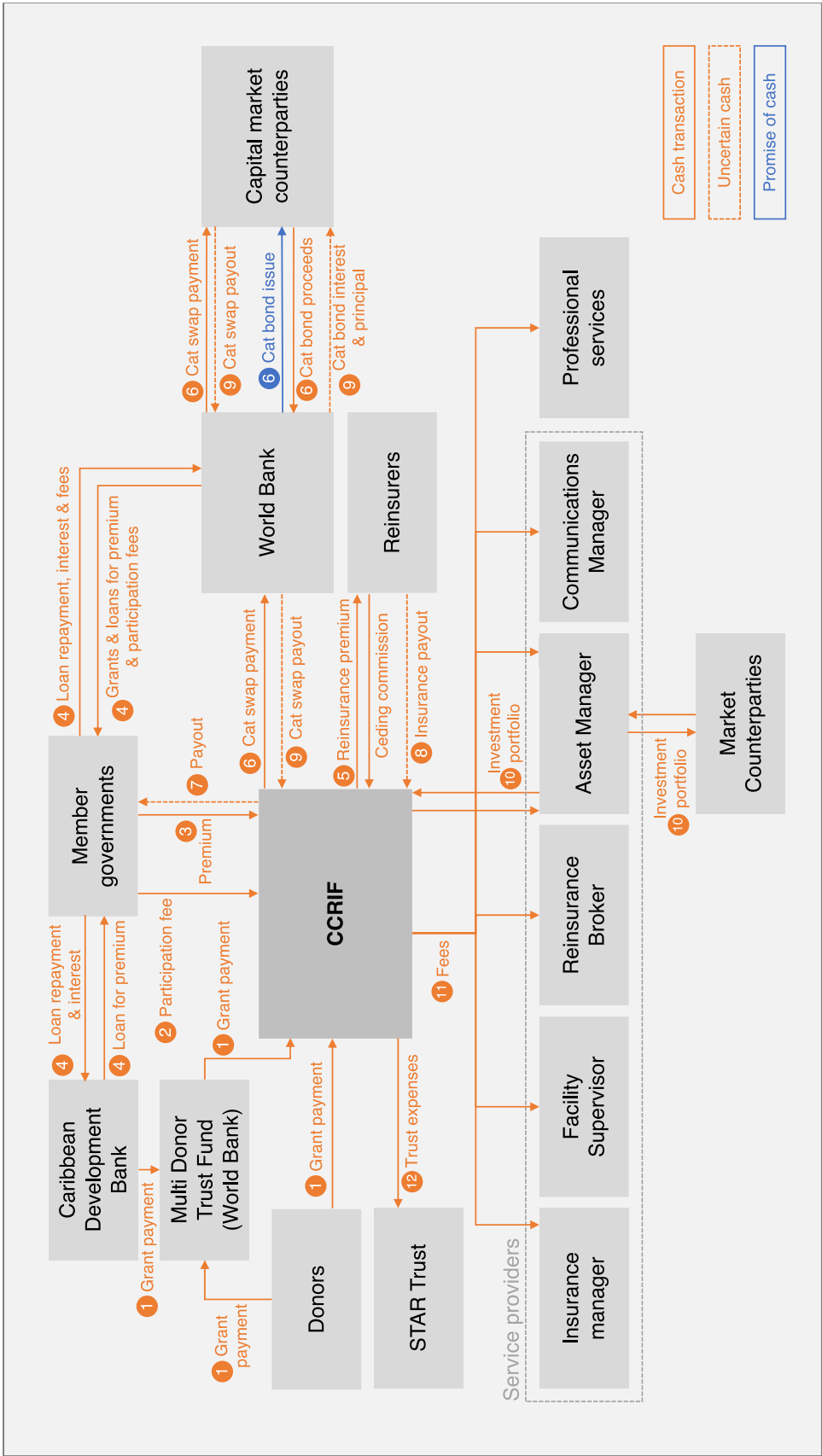
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Appendix A: Maps of flows of money

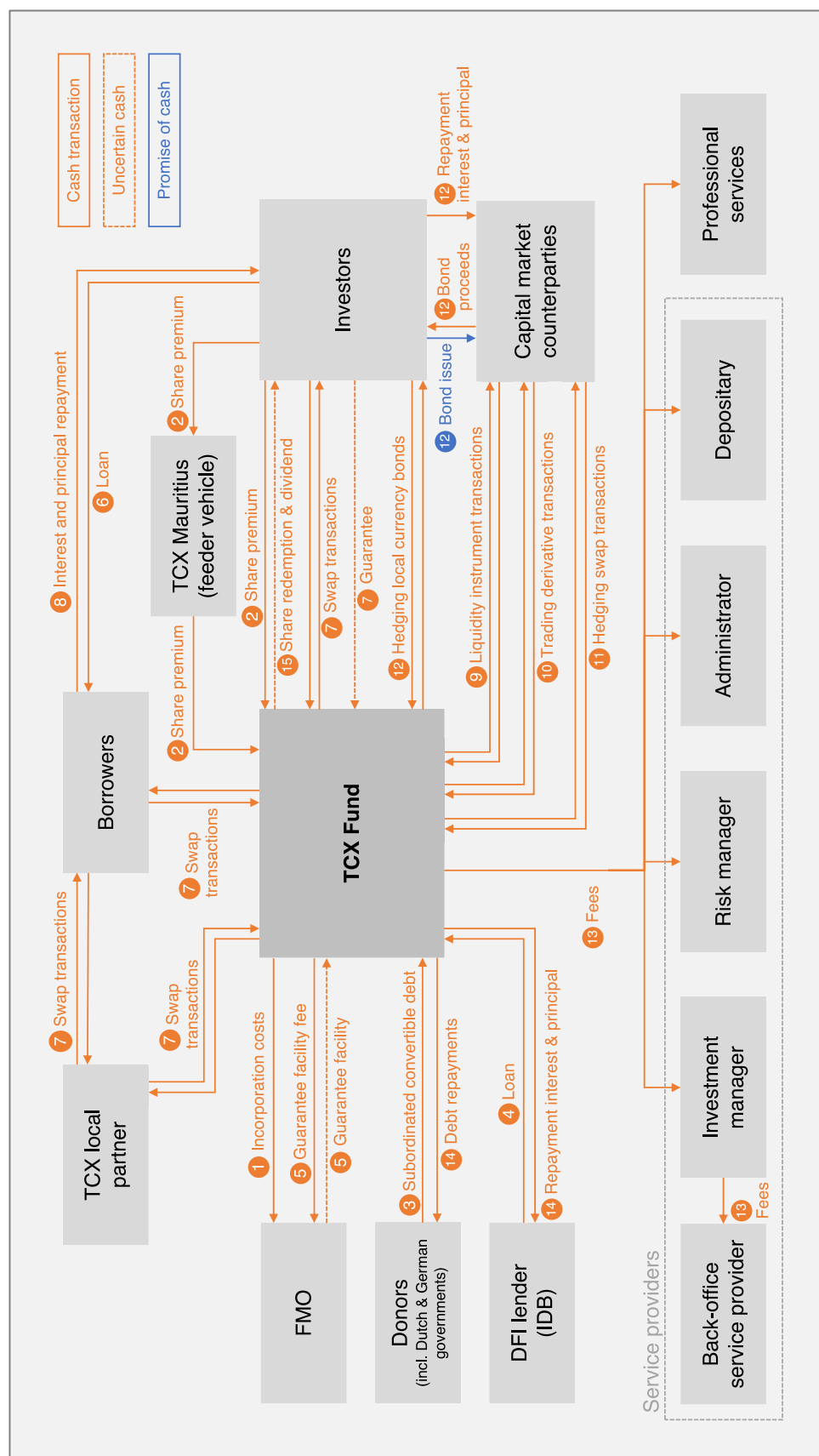
IFFIm – Map of flow of money



CCRIF – Map of flow of money



TCX – Map of flow of money



Appendix B: Snapshots of follow the money models

IFFIm – Snapshot of follow the money model

Organisation	Role	Line item	Currency	Sum	2006	2007	2008	2009	2010
Donor governments									
		NET TOTAL	\$	Public	(3,137,460,630)	(20,339,870)	(72,792,665)	(151,812,095)	(165,662,000)
Donor payments									
		Actual USD payments	\$	Public	(3,137,460,630)	(20,339,870)	(72,792,665)	(151,812,095)	(165,662,000)
UK	Donor government	Pledge	£	Public	(1,359,076,000)	-	(9,043,200)	(16,761,600)	(25,064,800)
France	Donor government	Pledge	€	Public	(364,301,500)	-	(19,200,000)	(19,776,000)	(20,661,000)
Italy	Donor government	Pledge	€	Public	(464,316,000)	(2,880,000)	(5,760,000)	(24,816,000)	(25,026,000)
Norway	Donor government	Pledge	\$	Public	(26,028,000)	(5,184,000)	(5,184,000)	(5,184,000)	(5,238,000)
Spain	Donor government	Pledge	€	Public	(185,520,500)	(9,096,000)	(9,096,000)	(9,096,000)	(9,190,750)
Sweden	Donor government	Pledge	SEK	Public	(269,522,400)	-	(17,673,600)	(17,673,600)	(17,857,700)
South Africa	Donor government	Pledge	£	Public	(19,615,000)	-	(960,000)	(960,000)	(970,000)
France	Donor government	Pledge	€	Public	(855,298,800)	-	-	(19,200,000)	(21,099,300)
Netherlands	Donor government	Pledge	€	Public	(77,950,000)	-	-	-	(9,700,000)
UK	Donor government	Pledge	£	Public	(214,048,407)	-	-	-	-
Norway	Donor government	Pledge	NOK	Public	(1,467,750,000)	-	-	-	-
Australia	Donor government	Pledge	AUD	Public	(189,600,000)	-	-	-	-
Italy	Donor government	Pledge	€	Public	(25,092,000)	-	-	-	-
Australia	Donor government	Pledge	AUD	Public	(36,937,500)	-	-	-	-
France	Donor government	Pledge	€	Public	(149,250,000)	-	-	-	-
Netherlands	Donor government	Pledge	€	Public	(65,666,664)	-	-	-	-
Brazil	Donor government	Pledge	\$	Public	(8,525,000)	-	-	-	-
Norway	Donor government	Pledge	NOK	Public	(600,000,000)	-	-	-	-
Norway	Donor government	Pledge	NOK	Public	(1,200,000,000)	-	-	-	-
Italy	Donor government	Pledge	€	Public	(29,850,000)	-	-	-	-
Netherlands	Donor government	Pledge	€	Public	(149,250,000)	-	-	-	-
Norway	Donor government	Pledge	NOK	Public	(2,388,000,000)	-	-	-	-
Spain	Donor government	Pledge	€	Public	(9,950,000)	-	-	-	-
IFFIm									
		NET TOTAL	\$	Public	(16,449,954)	(5,515,803)	(2,001,702)	(9,133,051)	379,602
		Donor payments	\$	Public	3,137,460,630	20,339,870	72,792,665	151,812,095	165,662,000
		Bond proceeds	\$	Public	6,151,579,445	999,160,000	-	214,284,445	1,106,635,000
		Bond interest expense	\$	Public	(878,887,688)	-	(50,000,428)	(65,344,260)	(112,760,000)
		Bond redemptions	\$	Public	(5,504,796,000)	-	-	-	(232,466,000)
		Net swap payments	\$	Public	400,135,695	-	(9,487,818)	15,384,423	109,220,090
		Disbursement to Gavi	\$	Public	(2,941,683,772)	(524,749,285)	(428,268,866)	(272,638,133)	(330,027,488)
		Treasury manager's fees	\$	Public	(28,907,275)	(1,903,264)	(1,297,763)	(1,779,248)	(1,965,000)
		Consultancy fees	\$	Public	(3,468,642)	(35,000)	(76,686)	(87,956)	(234,000)
		Legal fees	\$	Public	(8,495,372)	(1,112,423)	(970,933)	(1,381,016)	(877,000)
		Auditors fees	\$	Public	(4,957,239)	(290,000)	(369,945)	(354,294)	(332,000)
		Trustees indemnity insurance premium	\$	Public	(4,090,068)	(124,688)	(504,293)	(584,087)	(488,000)
		Trustees meeting and travel expenses	\$	Public	(1,568,889)	(18,952)	(129,674)	(152,263)	(212,000)
		Administrative support fee - the GAVI Fund	\$	Public	(100,000)	(3,571)	(21,429)	(75,000)	-
		Bond issuance costs	\$	Public	(31,789,338)	(1,000,000)	(244,865)	(3,547,473)	(8,091,000)
		Other financing costs (related to bond issue)	\$	Public	(942,167)	(612,959)	-	(329,208)	-
		Investment portfolio (purchase/sale) (Funds in Trust)	\$	Public	(427,925,673)	498,681,672	402,161,173	(48,841,174)	(936,924,000)
		Income on investment portfolio (Funds in Trust)	\$	Public	131,783,079	3,512,916	14,302,575	4,474,588	10,758,000
		Interest on cash at bank (cash flow)	\$	Public	203,320	13,225	114,585	25,510	15,000
Gavi									
		NET TOTAL	\$	Public	2,940,423,630	523,668,625	428,185,711	272,541,806	330,027,488
Gavi Fund Affiliate		Disbursements from IFFIm	\$	Public	2,275,683,772	524,749,285	428,268,866	272,638,133	330,027,488
Gavi Fund		Disbursements from IFFIm	\$	Public	666,000,000	-	-	-	-
Gavi Fund		Donated services: trustees meeting and travel expenses	\$	Public	(50,541)	(13,268)	(17,156)	(20,117)	-
Gavi Fund		Donated services: legal fees	\$	Public	(1,070,963)	(1,070,963)	-	-	-
Gavi Fund		Donated services: publicity expense	\$	Public	(238,638)	-	(87,428)	(151,210)	-
Gavi Fund		Donated services: admin support	\$	Public	-	-	-	-	-
Gavi Fund		Admin support fee from IFFIm	\$	Public	100,000	3,571	21,429	75,000	-
CEPI		Disbursement from IFFIm through Gavi	\$	Public	-	-	-	-	-
World Bank / IBRD									
	Treasury manager	NET TOTAL	\$	Public	(75,085,826)	497,072,020	(405,678,167)	30,761,411	818,910,910
		Net swap payments from IFFIm	\$	Public	(400,135,695)	-	9,487,818	(15,384,423)	(109,220,090)
		Swap payments to market hedging counterparty	\$	Public	-	-	-	-	-
		Treasury manager's fees	\$	Public	28,907,275	1,903,264	1,297,763	1,779,248	1,965,000
		IFFIm's investment portfolio purchase/sale	\$	Public	427,925,673	498,681,672	(402,161,173)	48,841,174	936,924,000
		IFFIm's investment portfolio transactions in market	\$	Public	-	-	-	-	-
		IFFIm's income on investment portfolio	\$	Public	(131,783,079)	(3,512,916)	(14,302,575)	(4,474,588)	(10,758,000)
Capital market									
		NET TOTAL	\$	Private	232,104,243	(999,160,000)	50,000,428	(148,940,185)	(993,875,000)
		Bond issuance purchase price (IFFIm's proceeds)	\$	Private	(6,151,579,445)	(999,160,000)	-	(214,284,445)	(1,106,635,000)
		Bond interest	\$	Private	878,887,688	-	50,000,428	65,344,260	112,760,000
		Bond redemption	\$	Private	5,504,796,000	-	-	-	232,466,000
Financial institutions									
		NET TOTAL	\$	Private	32,731,505	1,612,959	244,865	3,876,681	8,091,000
		Bond issuance costs paid by IFFIm	\$	Private	31,789,338	1,000,000	244,865	3,547,473	8,091,000
		Other financing costs	\$	Private	942,167	612,959	-	329,208	-
		Hedging counterparty to World Bank	\$	Private	-	-	-	-	-
		IFFIm's investment portfolio transactions in market	\$	Private	-	-	-	-	-
Professional services									
		NET TOTAL	\$	Private	22,320,922	2,643,074	2,009,285	2,558,563	1,931,000
	Consultancy		\$	Private	3,468,642	35,000	76,686	87,956	234,000
Slaughter and May (UK) / Davis Polk & Ward	Lawyers	To IFFIm	\$	Private	9,566,335	2,193,386	970,933	1,381,016	877,000
Deloitte (D6-07, 18-/ KPMG (D8-17)	Auditors		\$	Private	4,957,239	290,000	369,945	354,294	332,000
	Publicity		\$	Private	238,638	-	87,428	151,210	-
	Insurance		\$	Private	4,090,068	124,688	504,293	584,087	488,000
Other private									
		NET TOTAL	\$	Private	1,416,110	18,995	32,345	146,870	197,000
		Trustee meeting and travel expenses paid by IFFIm	\$	Private	1,568,889	18,952	129,674	152,263	212,000
		Trustee meeting and travel expenses paid by Gavi	\$	Private	50,541	13,268	17,156	20,117	-
		Interest payments to IFFIm on cash at bank	\$	Private	(203,320)	(13,225)	(114,585)	(25,510)	(15,000)
Total									
					-	-	-	-	-

CCRIF – Snapshot of follow the money model

Organisation	Role	Line Item	Sum	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	
Member governments			NET TOTAL	(69,433,080)	(25,793,232)	(11,467,446)	(9,317,689)	2,549,846	(16,136,276)
	Member government (unattributed CARICC)	Parametric contracts premium (net of discounts)	Public	(257,059,340)	(19,488,512)	(21,838,512)	(21,488,509)	(20,777,214)	(20,043,512)
	Member government (unattributed CARICC)	Participation fee deposits	Public	(22,763,512)	(19,488,512)	(2,400,000)	(100,000)	225,000	-
	Member government (unattributed CARICC)	Participation fee deposits "received" and used for premium	Public	18,276,013	-	-	-	2,440,000	3,465,000
	Anguilla	Payout	Public	12,052,620	-	-	-	4,282,733	-
	Antigua & Barbuda	Payout	Public	6,827,275	-	-	-	-	-
	Bahamas	Payout	Public	397,598	-	-	-	-	-
	Barbados	Payout	Public	19,304,211	-	-	-	8,560,247	-
	Belize	Payout	Public	261,073	-	-	-	-	-
	Bermuda	Payout	Public	-	-	-	-	-	-
	Cayman Islands	Payout	Public	-	-	-	-	-	-
	Dominica	Payout	Public	23,278,996	528,021	-	-	-	-
	Grenada	Payout	Public	-	-	-	-	-	-
	Haiti	Payout	Public	31,415,851	-	-	7,753,579	-	-
	Jamaica	Payout	Public	-	-	-	-	-	-
	St Kitts & Nevis	Payout	Public	3,377,161	-	-	-	-	-
	St Lucia	Payout	Public	8,237,140	418,976	-	-	3,241,613	-
	St Vincent & the Grenadines	Payout	Public	1,622,994	-	-	-	1,090,388	-
	Trinidad & Tobago	Payout	Public	9,542,436	-	-	-	-	-
	Turks & Caicos	Payout	Public	21,587,919	-	6,303,913	-	-	-
	Nicaragua	Payout	Public	1,610,193	-	-	-	-	-
	British Virgin Islands (010618)	Payout	Public	-	-	-	-	-	-
	Montserrat (010618)	Payout	Public	-	-	-	-	-	-
	Sint Maarten (1118)	Payout	Public	-	-	-	-	-	-
	Panama (0119)	Payout	Public	-	-	-	-	-	-
	Guatemala (19)	Payout	Public	-	-	-	-	-	-
	OECS countries	IDA credit (for participation fees & insurance premium)	Public	14,179,352	7,150,000	3,975,000	2,037,500	1,016,852	-
		Payment of fees, interest & charges to World Bank	Public	(1,113,137)	(53,205)	(77,847)	(90,259)	(99,773)	(107,764)
		Repayment of loans	Public	(739,967)	-	-	-	-	-
	Haiti	IDA grant (for participation fees & insurance premium)	Public	8,995,000	5,140,000	2,570,000	1,285,000	-	-
		Canadian International Development Agency (CIDA) grant	Public	2,855,000	-	-	1,285,000	1,570,000	-
		Caribbean Development Bank grant for Haiti premium	Public	21,444,500	-	-	-	1,000,000	550,000
	Nicaragua	IDA credit (for participation fees & insurance premium)	Public	7,100,000	-	-	-	-	-
		Payment of fees, interest & charges to World Bank	Public	(122,456)	-	-	-	-	-
		Repayment of loans	Public	-	-	-	-	-	-
	Dominica	Grants from Canada and CDB for premium							
	Anguilla, Antigua & Barbuda, St Kitts & Nevis	CDB loans for premiums							
Donors			NET TOTAL	(157,090,765)	(50,469,600)	(16,960,000)	(1,285,000)	(2,570,000)	(733,142)
		Grants to multi-donor trust fund	Public	(116,729,600)	(50,469,600)	(16,960,000)	-	-	-
		Canadian International Development Agency (CIDA) grant	Public	(2,855,000)	-	-	(1,285,000)	(1,570,000)	-
		Caribbean Development Bank grant for Haiti premium	Public	(21,444,500)	-	-	-	(1,000,000)	(550,000)
		Caribbean Development Bank grant	Public	(14,000,000)	-	-	-	-	-
		Munich Climate Insurance Initiative (MCII) grants	Public	(932,680)	-	-	-	-	(183,142)
		Ireland grant	Public	(1,128,985)	-	-	-	-	-
		Canada and CDB grant for Dominica premium							
		CDB loans for premiums							
Multi-donor trust fund			NET TOTAL	32,900,456	42,214,240	938,967	(15,352,107)	(27,196,019)	(806,594)
	World Bank	Income from donations	Public	116,729,600	50,469,600	16,960,000	-	-	-
		Income from investment (WB as counterparty)	Public	4,700,000	1,923,192	-	2,776,808	-	-
		Administrative cost of fund (WB as counterparty)	Public	(1,150,000)	(809,392)	-	(290,608)	-	(50,000)
		Grants to CCRIF	Public	(87,379,144)	(9,369,160)	(16,021,033)	(17,838,307)	(27,196,019)	(756,594)
World Bank			NET TOTAL	(44,684,082)	(13,350,595)	(6,467,153)	(5,718,441)	(917,079)	157,764
		OECS project - disbursement of IDA credit	Public	(14,179,352)	(7,150,000)	(3,975,000)	(2,037,500)	(1,016,852)	-
		OECS project - fees, interest and charges	Public	1,113,137	53,205	77,847	90,259	99,773	107,764
		OECS project - repayment of loan	Public	739,967	-	-	-	-	-
		Haiti project - disbursement of IDA grant	Public	(8,995,000)	(5,140,000)	(2,570,000)	(1,285,000)	-	-
		Nicaragua (& Honduras) project - disbursement of IDA credit	Public	(7,100,000)	-	-	-	-	-
		Nicaragua (& Honduras) project - fees, interest and charges	Public	122,456	-	-	-	-	-
		Nicaragua (& Honduras) project - repayment of loan	Public	-	-	-	-	-	-
		MDTF investment income	Public	(4,700,000)	(1,923,192)	-	(2,776,808)	-	-
		Administrative costs of MDTF	Public	1,150,000	809,392	-	290,608	-	50,000
		Cat swap - swap with CCRIF	Public	-	-	-	-	-	-
		Cat swap - capital market counterparties	Public	-	-	-	-	-	-
		Cat bond - swap with CCRIF	Public	-	-	-	-	-	-
		Cat bond - capital market counterparties	Public	(12,835,290)	-	-	-	-	-
CCRIF			NET TOTAL	8,523,010	8,606,234	5,397,323	(11,775,754)	8,629,383	4,711,685
		Income from parametric contracts (net of discounts)	Public	257,059,340	19,488,512	21,838,512	21,488,509	20,777,214	20,043,512
		Participation fee deposits from members	Public	22,763,512	19,488,512	2,400,000	100,000	(225,000)	-
		Participation fee deposits used for premium	Public	(18,276,013)	-	-	-	(2,440,000)	(3,465,000)
		Expenses on parametric reinsurance contracts (incl. reinsur	Public	(137,264,601)	(7,947,500)	(9,461,164)	(8,766,913)	(10,188,150)	(10,049,295)
		Ceding commission on parametric contracts	Public	5,293,331	104,375	184,058	146,445	354,649	393,530
		Payouts - Claims paid on parametric contracts	Public	(139,515,467)	(946,997)	(6,303,913)	(7,753,579)	(17,174,981)	-
		Claims recovered on parametric (re)insurance contracts	Public	32,079,342	-	-	-	-	-
		Brokerage and facility supervisor fees	Public	(8,988,002)	(463,838)	(528,310)	(600,304)	(800,525)	(852,008)
		Investment Fund (purchase/sale (note: cash))	Public	(118,431,977)	(30,873,476)	(21,084,119)	(35,211,586)	(11,459,523)	(2,254,575)
		Investment Fund income	Public	45,965,526	1,273,909	3,146,957	4,394,534	4,997,254	2,299,366
		Accrued interest	Public	218,286	40,684	611,499	(785,543)	43,711	186,001
		Income from multi-donor trust fund	Public	87,379,144	9,369,160	16,021,033	17,838,307	27,196,019	756,594
		Caribbean Development Bank grant	Public	14,000,000	-	-	-	-	-
		Ireland grant	Public	1,128,985	-	-	-	-	-
		Captive management fees	Public	(1,507,750)	(65,000)	(100,000)	(100,000)	(115,000)	(120,000)

Organisation	Role	Line item	Sum	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012
		Publicity fees	Public (1,579,527)	(62,252)	(95,742)	(174,753)	(136,165)	(165,991)
		Consultancy fees (unattributed)	Public (717,213)	(100,000)	(110,489)	(54,844)	210,180	(36,852)
		Consultancy fees - Product development (risk model / loss	Public (302,328)	(77,350)	(104,978)	(120,000)	-	-
		Research and development expenses	Public (396,151)	-	-	-	-	-
		Development costs	Public (4,463,635)	-	-	-	(407,040)	(47,850)
		Calculation agency fees & license fees	Public (500,000)	-	-	-	-	-
		Investment management, custody and fund administration	Public (8,905,341)	(66,363)	(549,369)	(946,730)	(1,058,098)	(942,807)
		Auditors fees	Public (1,744,061)	(58,500)	(44,500)	(42,000)	(62,500)	(54,500)
		Legal fees	Public (394,150)	(114,884)	(2,898)	(3,507)	(8,252)	-
		Trust expenses (trustee fees, enforcer fees)	Public (508,814)	(101,725)	(43,000)	(34,750)	(38,250)	(30,000)
		Board and executive management remuneration	Public (5,664,658)	(205,235)	(153,920)	(198,000)	(247,179)	(229,682)
		Directors' and Officers' insurance	Public (276,874)	-	(31,775)	(25,000)	(25,000)	(25,000)
		Meeting expenses	Public (1,113,734)	(12,203)	(77,491)	(93,115)	(67,745)	(85,346)
		Startup expenses	Public (40,000)	(40,000)	-	-	-	-
		Registered office fee	Public (2,500)	(2,500)	-	-	-	-
		Sundry expenses and bank charges	Public (265,258)	(7,004)	(3,348)	(4,320)	(13,818)	(9,125)
		CIMA/Government fees (license, filing)	Public (175,148)	(14,091)	(9,720)	(10,386)	(11,646)	(11,647)
		Central American initiative expenses	Public (227,010)	-	-	-	-	-
		Charitable donation to UNESCO	Public (100,000)	-	(100,000)	-	-	-
		Technical assistance expenses (excl. ECA study)	Public (5,284,077)	-	-	(195,536)	(450,772)	(463,186)
		Technical assistance ECA study	Public (642,683)	-	-	(622,683)	(20,000)	-
		MCI grant	Public 932,680	-	-	-	-	183,142
		MCI project expenses (fund Facility Supervisor)	Public (1,010,164)	-	-	-	-	(307,596)
		Share capital contribution from shareholder/Star trust	Public 72,620,000	120,000	-	-	-	-
		Distribution/dividend paid to shareholder/Star trust	Public (72,620,000)	(120,000)	-	-	-	-
		Cat swap - swap with World Bank	Public -	-	-	-	-	-
		Cat bond - swap with World Bank	Public -	-	-	-	-	-
Reinsurance		NET TOTAL	99,891,928	7,843,125	9,277,106	8,620,468	9,833,501	9,655,765
	Munich Re (Reinsurers)	Parametric reinsurance contracts (incl. reinsurance broker)	Private 137,264,601	7,947,500	9,461,164	8,766,913	10,188,150	10,049,295
		Ceding commission on parametric contracts	Private (5,293,331)	(104,375)	(184,058)	(146,445)	(354,649)	(393,530)
		Payouts to CCRIF on parametric (re)insurance contracts	Private (32,079,342)	-	-	-	-	-
	Benfield Reinsurance broker (07/08-10/11) - AON Benfield (08/09-10/11); Guy Carpenter (11/12-14/15); Willis Re (15/16-)							
Brokerage and facility supervisor/risk management		NET TOTAL	9,998,166	463,838	528,310	600,304	800,525	1,159,604
	Broker: Benf Facility supervisor and reinsur	Facility supervisor & broker fees charged to CCRIF	Private 8,988,002	463,838	528,310	600,304	800,525	852,008
		MCI project team (facility supervisor)	Private 1,010,164	-	-	-	-	307,596
	Note: expenses on reinsurance incl. broker fees after 07/08							
Investment / asset management		NET TOTAL	81,371,792	29,665,930	18,486,531	31,763,782	7,520,367	898,016
	London and Asset Manager (Investment f	CCRIF's Investment Fund purchase/(sale)	Private 118,431,977	30,873,476	21,084,119	35,211,586	11,459,523	2,254,575
		Investment Fund income to CCRIF	Private (45,965,526)	(1,273,909)	(3,146,957)	(4,394,534)	(4,997,254)	(2,299,366)
		Investment Fund transactions in market	Private -	-	-	-	-	-
	London and Asset management	Investment management, custody and fund administration	Private 8,905,341	66,363	549,369	946,730	1,058,098	942,807
Professional services incl. product development		NET TOTAL	11,881,689	477,986	490,382	520,104	543,777	450,193
	Sagcor Insu Captive management	Captive management fees	Private 1,507,750	65,000	100,000	100,000	115,000	120,000
	Sustainabilit Publicity / corporate commun	Publicity fees	Private 1,579,527	62,252	95,742	174,753	136,165	165,991
	Consultancy	Consultancy fees (unattributed)	Private 717,213	100,000	110,489	54,844	(210,180)	36,852
	Kinetic Anal, Consultancy / Hazard and risk	Product development (risk model / loss modelling framewo	Private 302,328	77,350	104,978	120,000	-	-
	Probably: Kinetic Analysis Corporation	Research and development expenses	Private 396,151	-	-	-	-	-
	Kinetic Anal, Product development	Product development (computer loss modelling software)	Private 4,463,635	-	-	-	407,040	47,850
	Probably: Kii Calculation agency fees & license f	Calculation agency fees & license fees	Private 500,000	-	-	-	-	-
	PWC (extern Auditors	Audit fees	Private 1,744,061	58,500	44,500	42,000	62,500	54,500
	Turner and F Lawyers	Legal fees	Private 394,150	114,884	2,898	3,507	8,252	-
	Insurance	Directors' and Officers' insurance	Private 276,874	-	31,775	25,000	25,000	25,000
CCRIF Star Trust (CCRIF shareholder)		NET TOTAL	508,814	101,725	43,000	34,750	38,250	30,000
	STAR Trust, CA STAR Trust (15/16-)	Share capital contribution to CCRIF	Public (72,620,000)	(120,000)	-	-	-	-
		Dividend received from CCRIF	Public 72,620,000	120,000	-	-	-	-
	CCRIF Star T Trust	Trust expenses (trustee fees, enforcer fees)	Private 508,814	101,725	43,000	34,750	38,250	30,000
CCRIF board & employees		NET TOTAL	5,664,658	205,235	153,920	198,000	247,179	229,682
		Board and executive management remuneration	Private 5,664,658	205,235	153,920	198,000	247,179	229,682
Capital market		NET TOTAL	12,835,290	-	-	-	-	-
		Cat bond	Private 12,835,290	-	-	-	-	-
Other private		NET TOTAL	1,845,889	21,023	(530,660)	1,505,661	57,852	(91,530)
		Meeting expenses	Private 1,113,734	12,203	77,491	93,115	67,745	85,346
		Startup expenses	Private 40,000	40,000	-	-	-	-
	Sagcor Insurance Managers (SIM)	Registered office fee	Private 2,500	2,500	-	-	-	-
	1 Cayman Islands bank; 13/14 onwards tw	Sundry expenses and bank charges	Private 265,258	7,004	3,348	4,320	13,818	9,125
	Financial services	Accrued interest to CCRIF	Private (218,286)	(40,684)	(611,499)	785,543	(43,711)	(186,001)
	McKinsey & Swiss Re	Technical assistance ECA study	Private 642,683	-	-	622,683	20,000	-
Other public/NGO		NET TOTAL	5,786,235	14,091	109,720	205,922	462,418	474,833
	Cayman Islands Monetary Authority	CIMA/Government fees (license, filing)	Public 175,148	14,091	9,720	10,386	11,646	11,647
	UNESCO	Charitable donation from CCRIF	Public 100,000	-	100,000	-	-	-
		Technical assistance expenses (excl. ECA study)	Public 5,284,077	-	-	195,536	450,772	463,186
		Central American initiative expenses	Public 227,010	-	-	-	-	-
Total			(12,835,290)	-	-	-	-	-

TCX – Snapshot of follow the money model

Organisation	Role	Line item	Public/Priv Sum	2007	2008	2009	2010	2011
Investors								
		NET TOTAL	Public	(824,221,938)	(330,240,105)	(115,615,300)	(82,234,747)	(75,322,896)
		Subscriptions of ordinary shares Class A		(682,876,825)	(316,005,613)	(97,777,734)	(7,596,168)	(57,843,341)
		Payment from redemption of shares Class A		93,861,967	-	-	-	-
		Distribution of dividend		27,150,000	-	-	-	-
		Subordinated Convertible Debt (DGS & KFW)		(257,856,015)	(18,144,869)	(18,172,566)	(74,944,580)	(17,665,000)
FMO (Nederlandse Financierings-Maatschappij) voor Ontwikkelings		Backstop guarantee facility fee		1,694,032	111,667	335,000	306,001	185,445
Inter-American Development Bank		Proceeds from Subordinated loan to TCX (IDB)		(20,000,000)	-	-	-	-
		Repayments of subordinated loan from TCX (IDB)		10,000,000	-	-	-	-
		Interest subordinated loan (IDB)		6,193	-	-	-	-
FMO (Nederlandse Financierings-Maatschappij) voor Ontwikkelings		Incorporation costs		3,798,710	3,798,710	-	-	-
TCX (The Currency Exchange) Fund								
		NET TOTAL	Public	1,049,870,940	331,065,464	53,439,536	156,691,339	101,012,900
		Proceeds from subscriptions of ordinary shares Class A		682,876,825	316,005,613	97,777,734	7,596,168	57,843,341
		Payment for redemption of shares Class A		(93,861,967)	-	-	-	-
		Distribution of dividend to holders of redeemable shares Class A		(27,150,000)	-	-	-	-
		Proceeds from Subordinated Convertible Debt		257,856,015	18,144,869	18,172,566	74,944,580	17,665,000
		Backstop guarantee facility fee to FMO		(1,694,032)	(111,667)	(335,000)	(306,001)	(185,445)
		Proceeds from Subordinated loan (IDB)		20,000,000	-	-	-	-
		Repayments of subordinated loan (IDB)		(10,000,000)	-	-	-	-
		Interest subordinated loan (IDB)		(6,193)	-	-	-	-
		Supervisory board remuneration		(1,943,697)	(44,163)	(176,978)	(156,560)	(153,884)
		Other governance expenses		(2,099,348)	-	(133,480)	(110,801)	(128,413)
		Investment result		271,153,451	2,001,875	(66,634,448)	80,132,378	31,557,600
		Interest income		72,459,805	714,661	11,331,870	2,474,560	1,533,736
		Interest expenses		(1,746,356)	-	-	-	-
		Administration fee		(554,988)	(230,304)	(181,435)	(143,249)	-
		Management fee (incl. back office provider costs; incl. administrator costs 10-)		(63,587,000)	(824,419)	(3,922,731)	(4,679,420)	(3,570,321)
		Management performance fee		(18,129,120)	-	-	(651,096)	(1,785,051)
		Back office expenses		-	-	-	-	-
		Risk management fee		(16,279,862)	(437,951)	(1,312,742)	(1,283,789)	(1,257,000)
		Depository fees		(896,000)	-	-	-	-
		Audit fee		(2,881,004)	(243,520)	(186,219)	(338,695)	(247,306)
		Operational audit		(1,174,519)	-	-	-	-
		Legal fees		(2,831,297)	-	(435,677)	(646,640)	(155,902)
		Rating agency fees		(1,091,733)	-	(151,031)	(13,447)	(114,038)
		Incorporation costs		(3,798,710)	-	-	-	-
		Tax advisory fees		(198,585)	(10,305)	(58,713)	-	-
		Compliance fees		(534,815)	-	(81,012)	(80,715)	(59,399)
		Fundraising expenses		(300,451)	(92,284)	(199,983)	-	(8,184)
		Research fees		(1,264,000)	-	-	-	-
		Other expenses		(1,444,479)	(8,231)	(33,185)	(26,578)	78,166
		Deposits into JoDEA		(1,084,916)	(539,739)	(545,177)	-	-
		Disbursements from JoDEA		140,000	40,000	100,000	-	-
		Finance costs ("grant") Cardano		(1,343,000)	-	-	-	-
		Other results (income)		136,000	-	-	-	-
Joint Donor Escrow Account (JoDEA)		Deposits into JoDEA		1,084,916	539,739	545,177	-	-
		Disbursements from JoDEA		(140,000)	(40,000)	(100,000)	-	-
Capital markets								
		NET TOTAL	Private	(342,002,900)	(2,716,536)	55,302,578	(82,587,582)	(33,091,336)
		Investment result		(271,153,451)	(2,001,875)	66,634,448	(80,132,378)	(31,557,600)
		Interest income		(72,459,805)	(714,661)	(11,331,870)	(2,474,560)	(1,533,736)
		Interest expenses		1,746,356	-	-	19,356	-
		Other results (income)		(136,000)	-	-	-	-
TCX local settlement partner								
		NET TOTAL	Private	-	-	-	-	-
INTL Global Currencies Ltd				-	-	-	-	-
TCX Operational Group								
		NET TOTAL	Private	100,589,970	1,492,674	5,416,908	6,757,554	6,612,372
TCX Investment Management Comp	Investment manager	Management fee	Private (1C)	63,587,000	824,419	3,922,731	4,679,420	3,570,321
		Management performance fee		18,129,120	-	-	651,096	1,785,051
		Back office provider expenses		-	-	-	-	-
Cardano Risk Management	Risk Manager	Risk management fee	Private	16,279,862	437,951	1,312,742	1,283,789	1,257,000
Zanders & Partners (07-11); TCX Inve	Back office services (to TCX Inve	Back office services (settling and administering investments, performan	Private	-	-	-	-	-
TMF Management Nederland (07-09)	Administrator (to TCX Inve	Administration fees for finance and control function (prep annual report	Private	554,988	230,304	181,435	143,249	-
Bank of New York Mellon (15-)	Depository (16) & Custodian (1	Depository fees	Private	696,000	-	-	-	-
Stichting Cardano Development	Ultimate owner of TIM	Finance costs		1,343,000	-	-	-	-
Professional services								
		NET TOTAL	Private	10,276,404	346,109	1,112,635	1,079,497	584,829
Citigroup (07-1); Deutsche Bank (10-15)	Accounts Bank			-	-	-	-	-
Clifford Chance (07-18); Jones Day (19)	Legal	Legal fees		2,831,297	-	435,677	646,640	155,902
Ernst & Young (07-17); PWC (18-)	Auditor	Audit fee		2,881,004	243,520	186,219	338,695	247,306
Compliance Advises (i.e. Mr Van Der	Compliance Officer	Compliance fees		534,815	81,012	-	80,715	59,399
Corporate Connect	Fund Raising Adviser	Fundraising expenses		300,451	92,284	199,983	-	8,184
Clifford Chance (07-18) & PriceWater	Netherlands Tax Advisor (CC, IC	Tax advisory fees		198,585	10,305	58,713	-	-
Standard & Poor's	Rating agency	Rating agency fees		1,091,733	-	151,031	13,447	114,038
Solutiional Assurance Services/Solutio	Operational advisor, accounting	Operational audit		1,174,519	-	-	-	-
		Research fees		1,264,000	-	-	-	-
Frank Legal (18-)	ISDA/CSA Adviser			-	-	-	-	-
Management and governance								
		NET TOTAL	Private	4,043,045	44,163	310,458	267,361	282,297
TMF Management (07-08/09)	Board of Directors			-	-	-	-	-
Supervisory board members		Remuneration		1,943,697	44,163	176,978	156,560	153,884
	Pricing Committee	Remuneration		-	-	-	-	-
		Other governance expenses		2,099,348	-	133,480	110,801	128,413
Other line items								
		NET TOTAL	Private	1,444,479	8,231	33,185	26,578	78,166
		Other expenses		1,444,479	8,231	33,185	26,578	78,166
				-	-	-	-	-
Total								
				-	-	-	-	-