

‘With a wealth of empirical evidence, this book exposes a fundamental choice underlying infrastructure development in Africa and elsewhere. Western development agencies emphasize institution-building, good governance and transparency with the result that investment is slow. In contrast, Chinese agencies seek to get it done so that investment is quick, but possibly unsustainable. Foreshadows a new era of geopolitics on the African continent.’

Carliss Y. Baldwin, Harvard Business School

‘Africa’s capacity for prosperity – which depends on the development of its infrastructure – is central to our way of life for a slate of reasons that are laid out in this terrific book. Gil explains what it will take to assure Africa’s stability and security. This is essential reading for scholars interested in the construction of institutions, and for anyone interested in international political economy.’

Anita McGahan, University of Toronto

‘*Duality by Design: The Global Race to Build Africa’s Infrastructure* is a rich and thought-provoking work, whose data and conclusions illuminate the Latin American reflection on the challenges in the development of infrastructure projects.’

Rafael Valim, President of the Brazilian Institute of Legal Studies in Infrastructure (2014–16) and editor of the Brazilian Journal of Infrastructure

‘Africa has a rapidly growing population, which is projected to reach forty percent of the world’s population by 2100. This rapid growth in population highlights the challenges presented by an infrastructure which is already woefully inadequate. Drawing on an extensive body of research, this book focusses on the incompatibility between building institutions and capital investment, a fundamental question that will become ever more pressing as the growth in population demands better infrastructure to serve it. The Western approach of institutional building as a necessary precursor to investment contrasts sharply with the Chinese focus on speed of investment, a contrast which will become more sharply drawn and debated in the future. This book makes a valuable contribution to that debate and is essential reading for all those interested in the provision of infrastructure to meet the needs of the growing population of Africa.’

John Roberts, Former CEO of United Utilities

‘This book presents a new, probing and insightful slant on the well-trodden discussion of the duality involved in promoting infrastructure development in emerging market countries with weak institutions. Rather than treating this as a dilemma with dichotomous alternatives, each with its pros and cons, this book delivers hard-hitting arguments and multiple case studies to support the idea of looking for hybrid organizational solutions that can maximize the benefits and minimize the risks of both approaches. It poses questions that can help to launch a new set of research and experimentation in support of the aspirations

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and goals of both the local populations and the grantee countries and multilateral institutions that support infrastructure development. It is well worth a read!’

Raymond E. Levitt, Kumagai Professor of Engineering Emeritus and Director of the Global Projects Center, Stanford University

‘*Duality by Design* is critical reading for anyone wanting to understand the dynamics of global development and the options we have for constructing a world that serves us all. It provokes us to think differently, to see alternative paths to progress, to more deeply understand challenges in developing economies, to open a more expansive conversation and to engage in a constructive debate about our collective future.’

Sara Beckman, University of California, Berkeley

‘*Duality by Design* lays out two development models that are implemented in a vast number of countries across Africa ... One model puts emphasis on investments and enhanced capacity while the other follows an approach of aligning infrastructure investments with much-needed institutional capacity building and governance. Perhaps the two models will need to come together to make a real development impact for the continent. A great start for a much-needed discussion on effectiveness of infrastructure development in Africa.’

Benedict L. J. Eijbergen, The World Bank

‘This book has brought together some of the finest minds within the academic and research fields, who have real knowledge and understanding of the complex challenges faced by governments and their international agencies, and global private sector enterprises in responding, at a relevant scale, to the infrastructure needs of Africa. They have articulated the risks of not meeting this urgent challenge, while clearly acknowledging the risks of doing so. They have dared to confront these challenges, and to think very radically; nothing less will suffice.’

Ian Reeves, Chairman, The Estates and Infrastructure Exchange, eix.global

Duality by Design

Africa's rapid population growth and urbanisation has made its socio-economic development a global priority. But as China ramps up its assistance in filling Africa's gap in very basic infrastructure, to the detriment of building institutions, warnings of a debt trap have followed. Building upon an extensive body of evidence, the editors argue that developing institutions and basic infrastructure when there is a shortfall of institutions in the environment are two equally desirable but organisationally incompatible objectives. In conceptualising this duality by design, a new theoretical framework proposes better understanding of the differing approaches to development espoused by traditional agencies, such as the World Bank, and emergent Chinese agencies. This new framing moves the debate away from the fruitless search for a 'superior' form of organising, and instead suggests looking for complementarities in competing forms of organising for development. For students and researchers in international business, strategic and public management, and complex systems, as well as practitioners in international development and business in emergent markets.

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Duality by Design

The Global Race to Build Africa's Infrastructure

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Foreword

Most academics, if they are honest, will admit to living with a constant worry about the usefulness of the theoretical exercises that they engage in. Worse, there is the creeping guilt that what we enjoy doing may be contributing too little to the solution of really important problems in the world. The current volume goes a long way to reassure researchers and practitioners that what sound theory and careful research have something to say that is of value to those engaged in trying to solve important real-world problems.

The creation of infrastructure in Africa is arguably one of the top global concerns for this decade. ‘Failure to act, and make Africa a better place to live and work, will saddle future generations with a major bottleneck to global sustainable development. Africa’s struggle is our struggle’, as the editors of the introduction to this volume eloquently put it.

The central organising idea that the editors use for this volume is that of duality – of the tension between jointly valuable but organisationally incompatible objectives. At the level of organisations, the typical poles of a duality are efficiency and effectiveness, revenue enhancement and cost efficiency, innovation and stability. At the level of national and regional policy, the duality this volume refers to is that between developing institutions and attracting capital.

Rules, procedures and norms for transparent and stable governance take time to build and require hard choices; attracting capital today creates pressures towards expediency. It is a very important tension and one that the organisation designers in many developing economies (i.e. their policy makers) will recognise, beginning as they often do from a situation of significant ‘institutional voids’. The tension in this duality seems pronounced in the African context because of the role of China as a source of investment, a role which, at best, is agnostic to the development of local institutions and at worst, is suspected of aiming to keep them stunted. ‘If the water is too clear, you don’t catch any fish’, as a senior Chinese administrator is reported to have said (p. 25). Shriill rhetoric from interested parties arrayed at the two poles of this duality has

for too long seemed to have substituted for carefully collected evidence, creating an ‘evidentiary void’ of its own.

The authors contributing to this volume help fill this ‘evidentiary void’. This does not mean they agree on everything. We learn of cases in which the prioritisation of institution building over capital investment has led to outcomes that can be classified as ‘politics beats economics’. We also learn of situations in which rapid infrastructure development has occurred, but at the risk of jeopardising the long-term viability of institutions.

The most practically relevant insights to emerge from this book may be around strategies for dealing with this duality. Organisation science has pointed to three broad approaches to dealing with organisational dualities: structural separation (different parts of an organisation pursue different poles of the duality), temporal separation (the organisation pursues different poles at different times) and what is known as ‘contextual ambidexterity’ – finding ways to allow every organisational member to internalise the trade-offs and optimise them in a manner that benefits the organisation. It is interesting to speculate whether these different strategies, in the context of the current problem, are best adopted in the case of each different stakeholder (e.g. investors, multilateral funding agencies and national policy makers).

The evidence and concepts that Gil, Stafford and Musonda have curated here can serve as a very useful platform to improve the quality of discussion and decision making around what is clearly one of the grand challenges for the world today. I congratulate them for putting this work together, and thank them for this valuable contribution to public discourse.

PHANISH PURANAM

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The development of an edited book is a collaborative work. When we set off on this journey, we did not know where we would end up. But we had friends and colleagues who endorsed our ideas and sustained us through this project. And so we started by relying on them, and the friends and colleagues of our friends and colleagues who were also doing good empirical work grounded in Africa's challenge to pursue socioeconomic development by filling critical gaps in basic infrastructure. Many of these scholars went on to become coauthors of chapters in this book, and reviewers of chapters from other authors. We are immensely grateful to them all for having taken up the challenge.

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