Wiley Finance Series

BANKS AND FINTECH ON PLATFORM ECONOMIES

Contextual and Conscious Banking

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Introduction

Today it is very clear. Digital platforms are eating the world, affecting consumer behaviour and transforming corporate strategies through a substantial change in stakeholder value across entire industries. The removal of frictions inside active ecosystems allows platforms to create unforeseen value-generating interactions among participants. Traditional firms usually trade in the products that deliver certain results and focus on the quantification of **outputs** like discrete sales figures or quantities. Instead, platforms place the distribution of products on the periphery of corporate strategy, and focus on the generation of **outcomes** through hyper-personalised client journeys. To succeed in platform economies, firms must overcome the complexities of monetising while trading in the results themselves on open ecosystems. Placing the final users to the front and centre of business action is necessary but might not be enough. In particular, the emergence of outcome economies exposes financial institutions to the weakness of consolidated revenue-generating mechanisms. Traditionally, banking performance was driven by interest rate margins and fee-based models, centred on product distribution channels. This business architecture is no longer able to stand the test of time, and is facing an accelerated shift towards new economic, social, and digital normals. Interest rate margins and product fees are evaporating, and the value chain, based on the intermediation of financial products, is losing its grip. To generate sustainable business value on outcome economies, banks and fintech need a new strategic anchor that centres on a novel understanding of the "biological" relationship between clients, financial markets, and technology. This discovery encourages both them and the regulators to undertake a substantial redefinition of the business roles, economic perspectives, and social purposes that are revealed in this book.

The advent of "outcome economies" is a tsunami for the traditional business culture. Business and technology leaders are asked to join in a mindset change to conquer outcome economies. Sustainable business performance is no longer based on linear relationships between manufacturers, distributors, and consumers. Instead, the main economic levers lie in the ability of new business models to engage users and complementors continuously through digital technology. Innovators are required to think in a non-linear manner through a novel understanding of users' needs. They are asked to master artificial intelligence and big data analytics to win users' trust, based on the transparent contextualisation of frictionless experiences, at convenient prices. Essentially, products and services become more granular (e.g., micro-services delivering personalised insights about Facebook users and their network of friends), and can be embedded in users' journeys to foster personalised interactions (e.g., understanding customer preferences to optimise product discovery on Amazon). The platform orchestration of the ecosystems of users, producers, or developers is essential to remain relevant in any industry, and keep up with competitors' speed of innovation by embracing exponential technologies. Digital technology unlocks value by connecting individuals and organisations so that they can interact in ways not otherwise possible, launching non-linear increases in utility. Cloud-native platforms leverage digital interoperability to extend positive network effects across borderless communities of providers and consumers, capturing an ever-growing share of users' life value. They truly can revolutionise the way industrial products and services are conceived, designed, produced, and distributed.

Did you take an Uber for your morning commute? You booked that on a digital platform. Did you read about this book on LinkedIn while slacking on your job? You found it on a social media platform. Was it delivered to your doorsteps by Amazon Prime in less than 24 hours? You ordered it on an e-commerce platform.

Not all products and services can be conveniently reinvented inside outcome economies. This is particularly true for regulated and highly asymmetrical industries like financial services. First of all, regulation is a foundational industry backbone since the cost of default cannot usually be subsidised privately. Therefore, fintech innovation is often asked to develop inside sandboxes, although platform economics can only be tested on large-scale real-world interactions. Second, a key role of regulation is to protect the final clients who are facing information asymmetries, which permeate the consolidated practices of financial intermediation. Typically, platforms flourish in traditionally asymmetrical markets because they add value by reducing asymmetries through direct access to more or better information (e.g., markets for used cars). However, this process of disintermediation is more complex for banks and fintech because financial asymmetries are a double-edged sword. They are based not only on information but also on human biology, as described in Sironi [1].

A novel understanding of what is really going on in banking and financial markets is required in order to succeed with digital transformations. On one hand, information asymmetries result in higher intermediation costs that digital platforms can challenge by competing on cost convenience. On the other, they reveal a "biological" obstacle to full digital adaptation of client habits that cannot be eased with better information without a transparent communication effort, centred on human relationships. This human-centric approach to lower information asymmetries is business-critical, and it refers to how clients deal with financial uncertainty when taking clever financial decisions in consuming higher margin offers. In fact, digital technology is not a level playing field across industries. Financial services require a deeper understanding of the biological micro-foundations of financial markets to succeed in fintech innovation. Silicon Valley was wrong to assume that behavioural patterns are aligned when people purchase on Amazon compared to when they save, borrow, or invest with Goldman Sachs. They are not.

How can these problems be addressed and resolved? This book answers all these questions, and provides practical building blocks, an innovative mindset, and key strategic perspectives to succeed in fintech innovation on platform economies across banking and non-banking ecosystems. Financial institutions are already updating the traditional business models that were conceived inside output economies and are striving to generate more business value in order to remain relevant in a transparent world, composed of outcome economies. Strategic investments in trusted data architectures and artificial intelligence (AI) are a necessary step to dismantle outdated data silos across business units and increase the amount of information shared on open banking platforms. Also, core communication capabilities, both digital and human, have to be strengthened by infusing AI into all business critical processes. In order to achieve this gargantuan effort of digital transformation, what is needed are clear strategies that match corporate ambitions, the competitive landscape, the effective maturity of exponential technologies, and the digital adaptability of consumers and ecosystems.

THE BANKING REINVENTION QUADRANT

Business and technology leaders can navigate these uncharted waters by following the compass of "higher business value" on the **Banking Reinvention Quadrant (BRQ),** as shown in Figure 0.1. The BRQ illustrates how to transform information systems (i.e., core banking) and communication systems (i.e., digital interfaces and human relationships) to reach the higher BRQ spaces, calibrating the intensity of the information and communication strategies. The Information Quotient (IQ) is the "technology" axis and represents the level of openness in the use of internal and external data. It guides the shift from monolithic core banking to hybrid cloud platforms, fostering the participation of partners and complementors. The Communication Quotient (CQ) is the "business" axis and represents the intensity in the use of AI to support digital relationships and new advisory models. It transforms the value-generating interactions between financial institutions and clients.

Following the compass provided by the theory and principles of Financial Market Transparency (FMT), the industry is developing from offer-driven propositions (i.e., pushing mechanisms) to demand-driven consumption along user journeys (i.e., pulling mechanisms). This corresponds to two distinct platform models: **Banking-as-a-Platform** and **Banking-as-a-Service**. In the first platform model, the bank owns the customer relationship, and integrates services from fintech and other providers to complement the offering. In the second platform model, the customer relationship is owned by the non-banking platform, which integrates services from the bank. Banks and fintech can participate in non-banking platforms as partners and complementors, or decide to orchestrate final ecosystems as sponsors and managers. This book discusses the strategic evolution of these models, and identifies the two

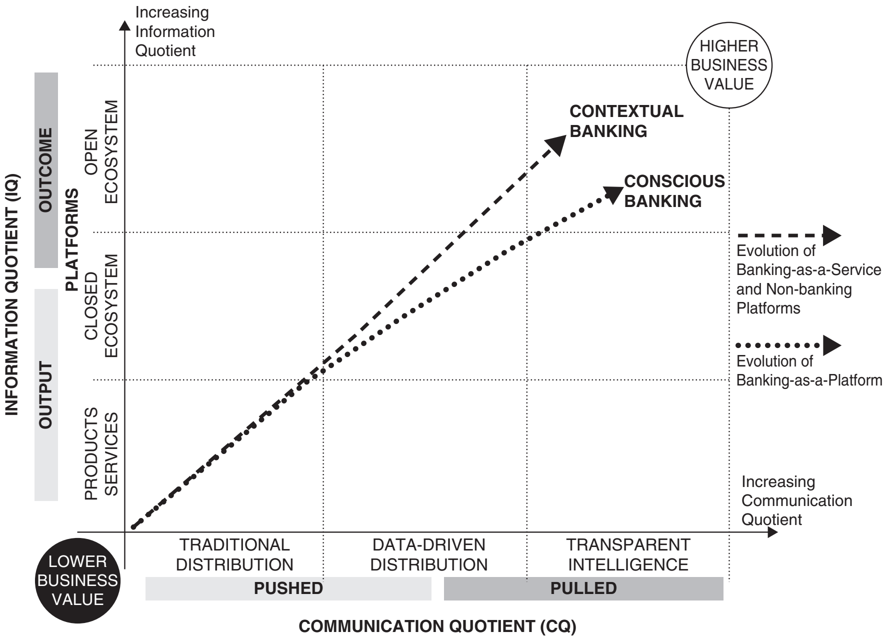

FIGURE 0.1 The Banking Reinvention Quadrant

strategies that leverage them to generate the highest business value on the BRQ, namely, **Conscious Banking** and **Contextual Banking**.

CONTEXTUAL AND CONSCIOUS BANKING PLATFORM STRATEGIES

Contextual Banking and Conscious Banking occupy the highest business value spaces on the BRQ. Contextual Banking excels in IQ, and makes Banking-as-a-Service capabilities **strategically invisible** inside non-banking areas. Banks and fintech can leverage open finance frameworks to streamline value-generating interactions, and let standardised offers be consumed in a personalised way at the right time and at point of need. Conscious Banking excels in CQ, and allows Banking-as-a-Platform models to be **transparently visible**, and stay relevant in front of end-clients, who are enabled to understand the value of banking propositions. Open finance capabilities enable holistic planning frameworks to guide the interactions between clients and trusted advisors. In both cases, business leaders are asked to realign stakeholder incentives, lowering the barriers separating business lines and opening up the organisations. Also, technology leaders must redesign business architectures on compliant and secured hybrid cloud platforms, gaining speed and flexibility to extend into adjacent industries and rebundle micro-services into innovative business models.

This book touches on all the key aspects of the digital transformation in financial services, and helps revenue-generating mechanisms to evolve on platform economies from "outputs" (banks as distribution channels of products) to "outcomes" (banks as transparent enablers of added-value experiences that support clients to achieve their personal, financial, or business goals). The Global Financial Crisis (GFC) and the COVID-19 outbreak heightened the existential need to rethink the scope and structure of financial services, scouting for more symmetrical benefits to be shared among shareholders and stakeholders across banking and non-banking ecosystems. CEOs, business and technology leaders, innovators, start-up entrepreneurs, regulators, scholars, and all readers interested in banks and fintech will better understand the idiosyncratic challenges of the financial services industry in order to succeed in outcome economies.

Essentially, exponential technologies enable platform innovation. Yet, only a human-centric perspective can build more inclusive and added-value platform economies, on which clients are supported in their life and business journeys punctuated by clever financial decisions. This human-centric starting point (i.e., anthropological or biological) originates in the theory of Financial Market Transparency, whose principles underpin the core messages of the book. Transparency is a real make-or-break enabler for sustainable digital transformation.

ORGANISATION OF THE BOOK

The book is organised into three parts (Figure 0.2), helping readers through this learning experience about banks and fintech on platform economies:

- Part I Foundations of Platform Theory
- Part II Reinventing Financial Services
- Part III Leading Platform Strategies

PART I FOUNDATIONS OF PLATFORM THEORY

Part I is dedicated to the essentials of platform theory. Core principles are reviewed, while also introducing the idiosyncrasies of financial services. Readers will gain from a deeper understanding of four business aspects. First, they will understand the mechanics of outcome economies. Second, they will learn the relevance of users' motivation and how platforms can address this. Third, they will appreciate how business and technical openness can fast-track innovation. Fourth, they will position platform governance in the light of financial market transparency to unlock business value, and differentiate in a sustainable way when facing intensified competition composed of bigtech contenders.

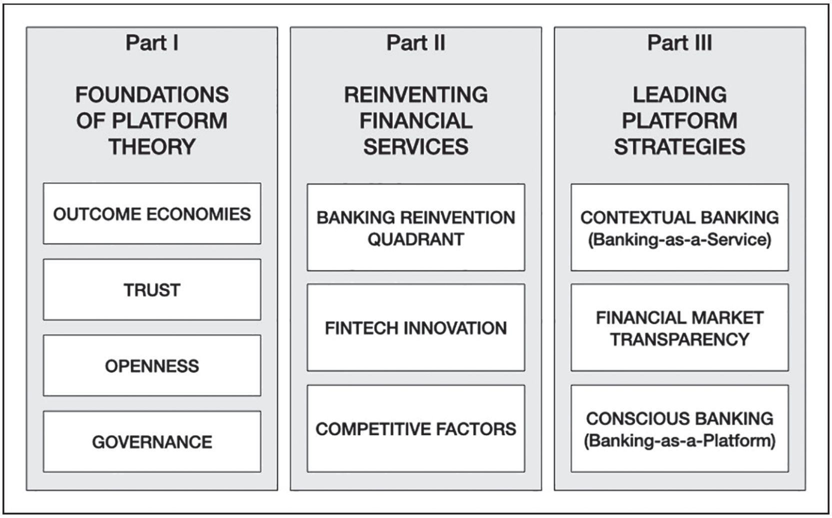

FIGURE 0.2 Organisation of the book

Chapter 1 answers the initial question: "What are platforms, and why do they usually win against linear industries?". An overview of general **platform theory** is provided, without restricting it to the target fields of banking and financial markets. Digital innovation is transforming all the relationships among producers, distributors, and consumers from linear supply-chain mechanisms (i.e., output economies) to multisided ecosystems (i.e., outcome economies). Overall, clients are always demanding the same thing: fulfilling their needs with frictionless user experiences at convenient prices. This is what digital platforms typically enable.

Chapter 2 is about **trust**, and pushes the readers to make the first steps in platform building. It answers the question, "How can platforms be launched, and participants gain sufficient motivation to interact?". Successful platform journeys are made up of three stages: (1) launching the business; (2) consolidating its value; and (3) helping it endure against internal and external threats. In this context, digital platforms can thrive only if they generate positive network effects. The chicken-or-egg dilemma needs to be resolved at the lowest possible prices: consumers shop where they find either the best or the most convenient producers; producers sell where they find enough motivated clients. Trust is the gasoline that kicks off the network effects and makes them endure, whatever the industry. And trust is of particular relevance in banking and financial markets, given the nature of the business.

Chapter 3 is about **openness** to answer the question: "How can established platforms make money on open data and interactions?". Opening up to the free contribution of platform complementors accelerates and strengthens platform economics. At the same time, platform providers must close business interactions when appropriate, control financial chokepoints, and fend off competition. Platforms are more likely to succeed when participants and complementors make more money – in aggregate – than platform providers. Enforcing unsuitable monetisation strategies runs the risk of depressing positive network effects and damaging the generation of shared value. Learning the most appropriate level of openness is never easy, especially in financial services. Banks tend to be closed institutions, and typically ring-fence access to clients and data.

Chapter 4 is about **governance**, and focuses on how to maintain long-term competitive advantages. It answers the question: "Which governance models make platforms resilient?". Good governance helps to prevent platform failure and beats the competition of external innovators. Adaptive governance maintains the right balance between openness, regulation, curation, and monetisation. Data and insights must be collected in a timely manner, and done right from the start, in order to guide the governance decisions that are facing high business uncertainty. Clearly, business uncertainty is not welcome in regulated industries like banking, which makes adaptive governance a more complex tool. **Transparency** starts to emerge as the key operational principle that allows a fruitful reconciliation between platform governance and banking regulation.

PART II REINVENTING FINANCIAL SERVICES

Part II focuses on financial services and fintech innovation.

Chapter 5 is about **business value**, and answers the question: "How do bank business models change in the digital world?". Banks are currently operating under a new normal which is composed of low to negative interest rates, high costs of capital, depleted interest rate margins, contracting intermediation margins, and intensified digital rivalry. Transformation is a matter of survival, not only of competition. Banks and fintech compete to rebuild and gain client trust, differentiate from each other with technology to improve the user experiences, and generate more value for the communities they serve. Advanced contenders work on Banking-as-a-Service and Banking-as-a-Platform architectures to attain higher business value on the **Banking Reinvention Quadrant**. Readers will learn how banks and fintech can leverage the essentials of platform theory to embed banking offers in adjacent ecosystems, as in Contextual Banking. They can rebundle services into advisory and planning platforms, as in Conscious Banking.

Having defined the path forward, what has prevented financial services from expediting the digital transformation in the outcome economy? The reasons are discussed in Chapter 6, which is about **fintech lessons learned**. It addresses the question on everybody's lips: "Why has fintech not yet disrupted financial services?". Silicon Valley misunderstood banking and fintech, as it did not understand that mobile is a demand-driven technology (i.e., ecommerce clients typically "pull" products and offers) while the revenues that matter the most are generated by offer-driven engagement (i.e., clients are "pushed" towards financial products and offers). Readers will learn how to place an offer-driven industry on a demand-driven technology, demystifying and redefining three buzzwords: disruption, digital, and unbundling.

Chapter 7 is about **key enabling factors** and focuses on legacy leadership and regulation. It answers the question: "How can business and technology leaders generate higher business value?". Platform journeys towards Conscious Banking and Contextual Banking cannot be successful without a mindset shift that sweeps inside organisations, and across the whole industry. The wind of change starts at the top with a mindset shift that realigns shareholders' and stakeholders' interests (i.e., incentives) fostering more agile and more transparent work places. Also, external factors like modern infrastructure, digital adaptation of consumers, and proactive regulation facilitate innovation. All factors are playing in for banking transformation.

PART III LEADING PLATFORM STRATEGIES

The third part provides a comprehensive review of how Banking-as a-Service and Banking-as-a-Platform architectures enable Contextual Banking and Conscious Banking platform strategies on a digitally and economically disrupted landscape.

Chapter 8 is about **Contextual Banking**, and answers the question: "What is the volume-based invisible future of financial services?". Financial services are getting progressively disintermediated by bigtech companies, starting from symmetrical offers made of mobile payments. The opportunity to make processes frictionless leads to making banking contextual. As a consequence, banking becomes progressively invisible and embedded into other industry journeys to unlock new value outside banking relationships. Contextual Banking occupies a very high value space on the Banking Reinvention Quadrant because it operates inside hyper-scaled businesses and leverages positive network effects exponentially.

Chapter 9 is about **Financial Market Transparency (FMT)**, and answers the question: "What is the theoretical anchor that links Contextual Banking and Conscious Banking?". The theory and principles of Financial Market Transparency form the theoretical framework that encompasses the usage of exponential technologies, real insights about clients, and regulation. If one of these aspects is missing, it does not allow the sustainable generation of platform value. Instead, anchoring business and technology action to the biological micro-foundations of the FMT provides the theoretical thrust to unlock value through technology and new business models when facing the instability of open cloud architectures, and that of financial markets. Contextual Banking and Conscious Banking platform strategies are based on symmetrical foundations of the FMT, on which information and communication lie. On the one hand, Contextual Banking providers deal with high complexity in information management. On the other hand, Conscious Banking providers deal with high complexity in communication management. Both find a solution in the FMT, leveraging simplicity of products and processes, and embedding uncertainty in the design of cloud-based business architectures and relationship-based financial decisions.

Chapter 10 is about **Conscious Banking** and answers the question: "What is the value-based visible future of financial services?". Conscious Banking platform strategies leverage open finance to bundle internal and external offers on Banking-as-a-Platform architectures, and create holistic value-generating experiences for clients. With the aid of exponential technologies, banks and fintech can industrialise new financial services platforms that unlock transparent value by linking in the network – through positive network effects based on consequentialist ethics – the level of financial consciousness in individuals made part of a newly orchestrated ecosystem. The result will be an increasing macro-level antifragility of financial markets, which is more reasonable than searching for illusionary stability in the presence of fundamental uncertainty.

Finally, the author shares his **concluding remarks**, reviewing in a last summary what readers have learnt, certain that they can by then appreciate – albeit not necessarily always share – all the theoretical elements, evidences, and reasoning this book on banking and fintech platforms provides.

Enjoy reading!

Concluding Remarks

Now more than ever, technology is reshaping the future of financial services. Established institutions stand at the digital epicentre of a tectonic fault depicted by the Banking Reinvention Quadrant, which represents the new business value landscape of financial services that, in many ways, has been unchanged for centuries. Deep within the crust of the BRQ, the progressive digitisation of everything and the new normal emerging from the GFC are colliding against consolidated economic interests. This seismic activity corresponds to a tension between information (core banking utilities) and communication (disintermediation of relationships and interfaces). This is not just unsettling the business landscape but is also creating new minerals, a process known by scientists as flash evaporation. Contextual Banking and Conscious Banking platform strategies are the resulting gold mines enriching the fault zone. They allow financial institutions to break out and conquer higher-value spaces on the BRQ, when facing intensified fintech and bigtech competition. Conscious Banking platforms are communication-intensive. They leverage exponential technologies and transparent relationships to unlock value, assisting clients and intermediaries to consciously manage financial lifestyles. Contextual Banking platforms are information-intensive. They leverage open finance and exponential technologies to eliminate frictions in non-banking ecosystems, embedding invisible services into the user journeys of other industries.

On the digital side of this fault, fintech start-ups have been building new business models for a decade in an attempt to compete with banking operations. They have focused on mobile access, price convenience, and seamless journeys leveraging data and AI to engage clients by captivating user experiences. Many fintech companies have already expired, and many more will die like a bee after expending its sting. That is the nature of start-up ecosystems. However, the real contenders are already emerging from the innovation landscape and are likely settling in as new leaders. Jaime Dimon [1], the JPM Chase CEO, offered his blunt assessment of the forces at play and the threat posed by fintech during a conference call with investment analysts:

> *Absolutely, we should be scared shitless about that. We have plenty of resources, a lot of very smart people. We've just got to get quicker, better, faster … As you look at what we've done, you'd say we've done a good job, but the other people have done a good job, too.*

In particular, Dimon pointed at the tight competition in the world of payments, citing a list of global competitors, such as PayPal, Square, Stripe, Ant Financial, Amazon, Apple, and Google among the names the bank needs to keep an eye on. What started as a fight between David and Goliath (i.e., fintech vs. incumbents) is now turning into a battle between Goliath and Goliath as bigtech companies have joined the ranks of cloud-native contenders to chip away more revenue from the banking industry, incrementally. Bigtech are accustomed to aggressive platform strategies. They are seizing the opportunity to remove frictions in client journeys, contextualising financial services inside outcome-oriented propositions, which progressively are replacing linear and digital distribution channels of financial products. The banking business has always been and will always be about relationships, facing the biological unveiling of information asymmetries. In a post-pandemic world of accelerated digital adaptation of client expectations, bigtech digital touch points start occupying the product-focused relationship space between clients and banking capabilities. In this way, they not only accelerate the transformation of banking operations into regulated utilities, but are also learning how to address regulatory compliance to fully disintermediate the banking charter on most transactions. Ultimately, contextualisation is a process that transforms financial services operations into an invisible mechanism of non-banking journeys. Once zero prices are reached, Contextual Banking platform strategies will likely strip product-focused financial intermediation of its bankers and banking frameworks, justifying the costs of capital and the operations on the optimisation of external ecosystems.

On the economics side of this fault, the consequences of the Global Financial Crisis are seemingly permanent. Regulators and central banks have realised that the GFC was not an event, but the revelation of deep system imbalances that are rooted in a faulty theory about the functioning of financial markets. Interest rates are structurally low and negative in core developed economies. Regulatory costs are significantly high and continuously increasing as new risks emerge, also from the digitisation process. The application of digital technology in back-end processes is eliminating most professional intermediaries, offering banks the opportunity to simplify their products and processes in a spasmodic search for radical cost reduction. Traditional banks are linear businesses: this process of simplification generates a further contraction of their margins, which cannot be countered with linear models of digital banking. As the prices that clients face approach zero, a renewed understanding of trusted relationships emerges disenchanted from the product-focus and recentred on the financial well-being of clients, as the differentiating turnkey element in banking competition. Bankers find a new sense of purpose for their relationships in the theory and principles of Financial Market Transparency. Transparency guides their action in relation to clients, society, and the environment in order to master the "hyper-digitisation" of everything, adding to platform economics the analog value to the holistic "hyper-personalisation" of clever financial decisions. Conscious Banking platform strategies reset the mission of banks and fintech on platform economies, focusing holistically on client outcomes instead of outputs, targeting financial consciousness as the real asset intermediated with the clientele.

Today's business world is noisy and changing fast. It is not easy to discern a rationale in a seemingly irrational age and provide a consistent reading of digital innovation and all the disruptive forces which are sweeping through the industry. Ultimately, CEOs must learn the importance of opening up their organisations across business units, and redesign their business architectures as part of open ecosystems. The fourth industrial revolution is a data-driven platform revolution. To succeed, the stakeholder incentives of banks and fintech must be realigned with platform economics, guided by the BRQ to shift business models transparently from outputs to outcomes.

There is no business innovation without a strategy for innovation, which this book, in a very humble way, has attempted to help craft. Innovation and progress happen at the intersection of many things. Working at the intersection between financial services, technology, and economics research is an incredible experience, which requires patience and imagination because business leaders, digital masterminds, and academics still have different skill sets and priorities, and use a different vernacular. Most of the book is based upon the experience gained in my career. It was written during the pandemic lockdown, stealing time from my family and friends. I am indebted to all of them for the patience and support demonstrated during this lengthy process of research and writing.

The book spells out a vision for the future of banks and fintech on platform economies, in which transparency unlocks value for clients, stakeholders, and society in a more symmetrical and inclusive economic system. Change is never easy. Facing the fourth industrial revolution and the power of technology, only transparency on costs, incentives, and consequences will allow digital innovation to turn change into progress.

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