CHAPTER ONE

NATURE OF THE CHALLENGE

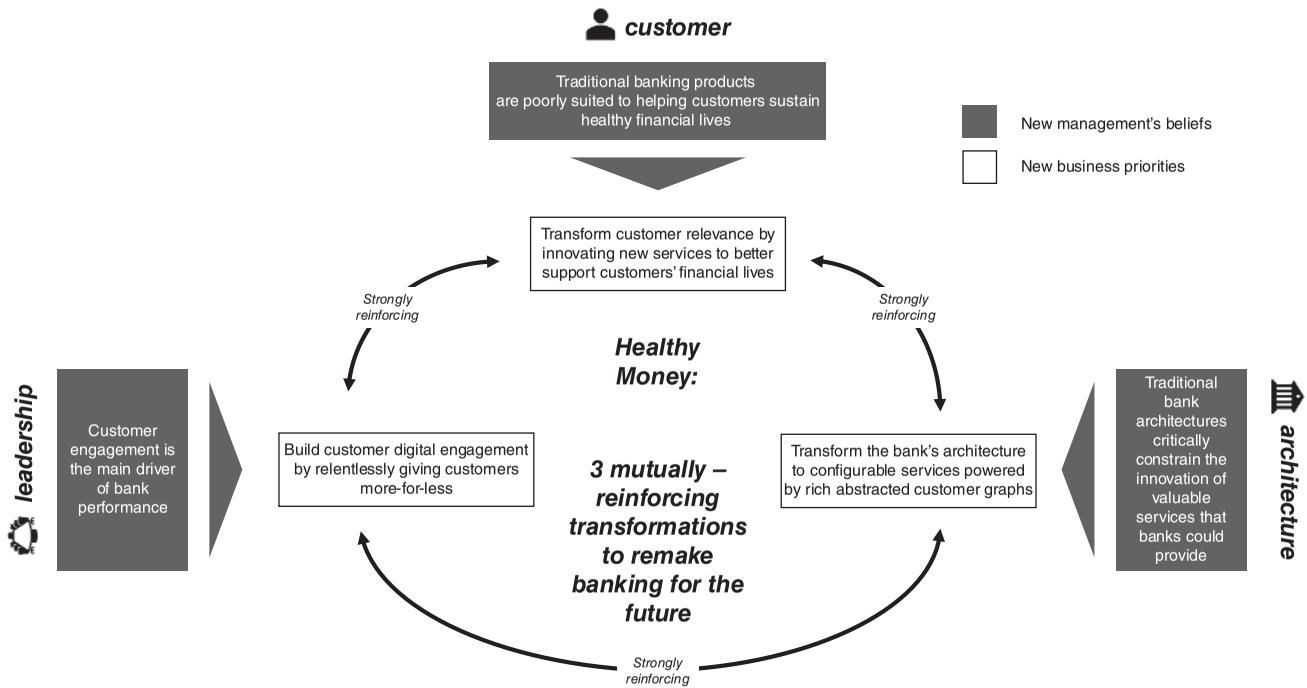
COPYRIGHTED MATERIAL

1.1 THREE MUTUALLY REINFORCING TRANSFORMATIONS

Most incumbent banks recognize that to deliver industry-levels of growth and relevance in the future, they need to dramatically up their game and move beyond their traditional ways of operating (Figure 1.1).

They recognize that the industry is in seismic transition and there will be a limited number of winners amongst them in the process. They also recognize the management challenge is to ensure their organizations are set up to be "probable winners in 2030" i.e., well placed to flourish in the changing environment, rather than the "rest" – those that are leaving their medium-term fate more to luck than to skill.

Figure 1.1


customer
Traditional banking products are poorly suited to helping customers sustain healthy financial lives
New management's beliefs
New business priorities
Transform customer relevance by innovating new services to better support customers' financial lives
Strongly reinforcing
Strongly reinforcing
Healthy Money:
leadership
Customer engagement is the main driver of bank performance
Build customer digital engagement by relentlessly giving customers more-for-less
3 mutually – reinforcing transformations to remake banking for the future
Transform the bank's architecture to configurable services powered by rich abstracted customer graphs
Traditional bank architectures critically constrain the innovation of valuable services that banks could provide
architecture
Strongly reinforcing

Across the industry, most banks have efforts in train responding along each of these three dimensions of this challenge:

- *Customer transformation*: transforming the customer relevance by building propositions that enable the bank to better support customers' financial lives.
- *Architecture transformation*: transforming the bank's architecture to enable configurable, flexible products and services, powered by rich, abstracted customer graphs and views.
- *Leadership transformation*: transforming the bank's culture and ways of working to drive continuous improvement, grow digital customer engagement and give customers more for less.

However, what distinguishes the "probable winners in 2030" from the rest, in our view, is two things:

1. how fundamentally they view each of these three transformations;
2. how effectively they interconnect them to deliver one overall transformation.

Firstly, **customer**. Pretty much every bank will say it's trying to become more customer centric. For most banks, three aspects typically dominate this focus:

Firstly, *streamlining customer journeys*. This means making it simpler, quicker and less painful for customers to interact with the bank and get things done – be it setting up a new account, paying a bill, addressing an issue etc. – the idea of customer journey improvement is to redesign internal processes to make them more productive for the bank and less painful for customers.

Secondly, *tailoring customer propositions*. This typically means tailoring and bundling existing banking products to segments of the population that share similar needs, e.g., for young people, for affluent customers, for

entrepreneurs etc. In some cases this means introducing new products, but more generally it often focuses on creating bundled packages of products and communications tailored in the tone of voice of the segment in question.

And finally, *personalizing customer interactions*. This typically means providing personalized messaging and prompts to help customers use the bank's services more effectively, including giving people relevant updates and feedback on their financial status or on progress of a specific customer journey (e.g., next steps to complete an onboarding journey).

These activities clearly improve the customer experience. They make interacting with the bank simpler, less painful and more rewarding. But they also reinforce an underlying implicit and corrosive premise that pervades the corridors of most banks today – i.e., that the bank's traditional product set basically "works just fine" – and customer centricity is about making the bank and its products more easily accessible to its customers.

An alternative reality, adopted by the "2030 probable winners," is that the reason that incumbent banks aren't keeping pace with the industry growth is that their traditional product set really *doesn't* work that well for customers. For them, being customer centric isn't simply making the bank *easier* for customers to use; it's about reinventing, unbundling and rebundling the bank's products and services to become genuinely *relevant* for customer's actual financial lives.

Importantly, this is asserting that the role of the bank isn't limited by the task of maturity transformation. The role of the bank is to partner customers to help them live financially healthy lives.

Being financial healthy is difficult for all of us. Importantly though, it's not particularly that it's *intellectually difficult*, its more that it's *emotionally difficult*. It's difficult the way all boring-but-worthy, discipline-oriented activities are difficult. We don't have a global obesity crisis because people don't know that fast food and fizzy drinks are fattening and bad for them.

We have a global obesity crisis because we all struggle to maintain good habits and do the right thing, even when we know the consequence of not doing so.

Similarly, our financial health is as much about us maintaining disciplines and building in resilience. It's about doing the right things and avoiding the wrong things, every day. And an authentic financial life partner is a bank whose services are specifically designed around how they can help us to do that. Not in a paternalistic or big brother way; but in an empathetic and empowering way. The role of the bank should be about making living a disciplined financial life easier for its customers; putting people in control of their financial lives and financial relationships; and being a dependable source of resilience and protection to support them.

This isn't a superficial overlay on top of the banking product set. It's not about clever new messaging to customers, periodic financial health checks or empathetic financial advice by well-intentioned branch staff or RMs. It's about redesigning the entire product set from the customers' financial lives back, not the bank's balance sheet.

In our view, its designing around five core themes – that we will outline below and discuss in Chapter 3. By comparing the financial instruments of the banking sector to those developed informally by unbanked communities around the world, we'll argue the sector's product set has never really been congruent with customers' basic financial lives.

Further, we'll argue that that was perhaps an acceptable compromise in the past. But two things have changed. Firstly, our digitized lives have meant we no longer need to accept the product compromises of the past as modern technology and data means we can do way better in terms of customer relevance and support than we could historically. But also, customer's financial lives have themselves evolved. They are much more fragile, networked and self-reliant than they were 30+ years ago. And the banks' product set just hasn't kept up with these new realities.

Of course, incumbent banks have long understood that customers don't always find it easy to run their financial lives well. But they've typically viewed that as essentially the *customers' fault* (a.k.a. a "user error") not the *banks' fault* (a.k.a. a "design error"). It's never really been front-and-centre for a large swathe of the industry to be introspective about designing its services with customers' financial lives as the starting point, not as an interesting afterthought.

By analogy, the personal computing industry of the 1980s and 1990s had a similar problem. Before the introduction of the Apple Macintosh in 1984, DOS-operated computers and their software were truly inaccessible to most users. Apple transformed that by redesigning personal computing front-to-back with the introduction of the Graphic User Interface – the icons, windows and the mouse (Figure 1.2).

And the internet was a further step change in this user-back design. A dominant feature of, say, the Google search page is not just that it brings together some of the most brilliant technology and analytics humankind has ever produced, but that it's so clear and simple that everyone can instantly figure out how to use it. It comes without a manual, without user training, without an expert advisor explaining it to us. And the technology is designed explicitly to predict what the user is trying to

Figure 1.2



1985 DOS Interface



1985 Apple Interface

do and help them do it (with predictive text, contextual results, etc.) – taking on the burden of customer success into the product design itself (Figure 1.3).

Crucially, the philosophical break-from-the-past here was to stop thinking "computers are difficult, we need to train people to use them" and start thinking "our job is to design computer software that is totally instantly usable, for everyone; and when customers struggle to use it effectively, *we* will redesign it, so they get the outcomes they want every time." This is the customer redesign we believe will come to financial services over the coming decade – either done by, or done to, the incumbent banks.

Secondly, **architecture**. Again, most banks recognize their new fintech competitors are architected digital-first. As a result, they are more productive and more responsive than traditional incumbents. Their modern, modular tech stacks and cloud environments, make them flexible, scalable, agile and automated. And they have done much to reset customer expectations on how frictionlessly standard industry journeys should operate – opening new bank accounts in a matter of minutes, painlessly making payments and getting loans, instantly blocking/reporting lost cards or suspicious transactions, etc.

Figure 1.3



1999 AOL Home Page



1999 Google Home Page

But, as incumbent banks look to modernize their technology and leverage their data, most will do so without re-thinking the underpinning *logical architecture* that dominates their way of thinking. Implicitly, the maturity transformation-centric mindset will prevail, and the logical architectures will continue to be account-based and process-oriented.

As we'll argue, hardwiring product-customer-account structures *logically*, makes whole-of-customer centricity, product configurability and experience enrichment all much more difficult *technically*. As such, the "2030 probable winners" will view the technology transformation as an architecturally centric one. Breaking down product monoliths and silos to create flexibly configurable products. But also, massively enriching how the bank records and understands customer IDs, relationships, needs and habits, etc. And similarly, abstracting experiences and partnership capabilities, to show up for the customer, in ways that anticipate the customers' intent and context.

We will discuss, in Chapter 4, five elements of this architectural view of the bank of the future.

And thirdly, **leadership**. Most banks also recognize the need to shift to a more tech-centric approach to agile ways of working – promoting continuous improvement and outcome-based funding and investment.

However, most banks' efforts to do this are limited by an underlying sense of business inertia, perhaps once again driven by the maturity transformation mindset. To elaborate, we can think of the dominant approach to leadership as marked by *discontinuous* improvement. In this model, the activities of (1) delivering performance today and (2) building the future – are operated quite separately, by different people, using different resources and operating to different performance standards. This is, in practice, the dominant approach across the sector for driving performance and change.

The challenges for institutions using this model are pretty commonly understood. They operate the future-build change projects to upfront

defined requirements that are difficult to specify and harder to follow, and that undermine the ability to learn, experiment and adjust as they go. The resulting change projects can bias to becoming ever grander and ever more disconnected from performance outcomes and delivery. And in the meantime, "everyday performance" becomes increasingly about squeezing out more profit from the same services – frankly, seeking clever new ways to extract more value from existing customers in ways they don't notice or don't mind enough to react to.

The agile, continuous improvement mindset, of course, is the attempt to bring the two activities (perform today, build for tomorrow) together into joined up, cross functional teams – referred to variously as squads, or value streams, or, increasingly, platforms.

In technology businesses, this continuous improvement focus makes natural sense as the basis of competition. Technology businesses (for example consumer devices like smartphones, TVs, game consoles, etc.) are in a perpetual deflationary death race. Prices of the same items are deflating by around 20–25% per annum. The companies are rapidly going out of business unless they can innovate fast enough to create newer better models that can sustain prices each and every year. The process is relentless – not keeping up with the pace of change for even just a couple of years in a row, can be enough to send these businesses off a cliff.

This relentless need to continually give customers "more for less" makes continuous improvement totally natural. There's a perpetual – perhaps healthy – paranoia driving the businesses to innovate to *regain* their franchise each year.

The challenge for many banks is the sense of customer inertia makes it hard for the internal culture to operate with this underlying sense of paranoia. Banks, implicitly, usually assume their customers will stick around into the future. Internal language (for example "primary account customers") has reinforced the sense that the franchise is perpetual and not something banks are fighting each year to regain.

And yet, as we've argued, the reality is incumbent banks *are* losing their value franchise – with sectoral value growth now overwhelming outside the incumbent sector (with Apple Wallet, Klarna, Shopify, eToro, etc.). It's not playing out in customer *switching* – customers aren't leaving their incumbent provider and closing their accounts. Its playing out in customer *engagement* – as customers increasingly focus their financial activity and habits with players that are more in tune with their financial lives. And, in so doing, relegating their incumbent provider to an increasing bit part player in their overall financial management.

And so, the "probable winners" are increasingly developing a leadership culture focused on perpetually regaining and deepening customer engagement – as a true north to make delivery of performance and building of future capabilities into two continual, joined up and symbiotic activities.

So, to reiterate, the Healthy Money Revolution is about driving three transformations together. The "probable winners" will view these as three deeply fundamental and introspective transformations renovating how they add value to customers and how they architect and operate themselves internally. They'll distinguish themselves from their counterparts – the rest – who will view the same transformations more superficially:

	2030 Probable Winners' Change Agenda		**The Rests' Change Agenda**
Customer Transformation	Transforming the customer proposition from balance sheet-driven products to Financial Health-driven services and support	vs.	Improving customer experiences through simplifying journeys and bundling propositions … but NOT… fundamentally redesigning underlying products and services

	2030 Probable Winners' Change Agenda		The Rests' Change Agenda
Architectural Transformation	Transforming the bank's architecture from monolithic, process-centric and "accounts-based" to a modular architecture based around customers' graphs, events and networks	vs.	Digitizing the bank by automating the way the bank operates today … but NOT … re-architecting how the bank operates
Leadership Transformation	Transforming the bank's culture to relentlessly build customer engagement and give customers more for less – delivering performance and improvement together	vs.	Change investing by dividing between "deliver performance" and "build future" … but NOT … organizing change to deliver both together – to perpetually drive customer engagement

Notice that, for the "probable winners," the three transformations are strongly inter-connected and mutually reinforcing. However, when treated more superficially these three transformations descend into quite distinct and separate problems and get delegated to different parts of the bank to progress relatively independently.

The customer transformation degenerates into a sequence of customer proposition bundles, net promoter score-type experience improvement activities and personalized messaging initiatives. It gets delegated to the franchises and to the marketing function to progress. The architecture transformation, on the other hand, becomes a series of discrete platform upgrade programs, left to the operations and technology functions to get on with. Whilst the leadership challenge, in practice, becomes a series of resource allocation and performance monitoring initiatives handed to the people function to deliver, normally under the badge of "implementing agile."

One consequence of pairing back these transformations to superficial function-by-function upgrades is that their value becomes

fatally trivialized. The changes still feel very costly and disruptive to execute, but the benefits feel limited and inconsequential. The lofty aspirations that kicked off the change efforts get salami-sliced down to a collection of mundane projects that are each expected to deliver unrealistic stand-alone paybacks. Over time, the institution loses faith in them and further pairs back the scope of ambition, and the efforts wither on the vine.

Digital transformations have a poor track record in banking. Around 70% are self-assessed as failures.[1] And the typical sources of failure cited are a lack of clearly aligned strategic goals and/or measures of success, an underestimating of the costs of complexity or impact of technical debt and/or gaps in key talent needed to deliver, particularly high-quality digital product managers and engineers.

But maybe the more fundamental challenge is a lack of introspection on what the transformation could or should be trying to do. And that in turn is the result of a lack of introspection on how well the bank is supporting customers' financial lives today.

The Healthy Money Revolution is rooted in a re-questioning of how well banking is playing its role today, and indeed what role it should seek to play.

In 2013, I wrote an article "So You Really Think You're Customer Focused?"[2] arguing that banks' customer orientation was fatally held back by three (often implicit) institutional myths that needed to be jettisoned. Whilst prevailing wisdoms have moved on a lot in the decade since, there remain questions as to how far these institutional myths have really been left behind:

1. *Banking is boring*: The purpose of "customer experience management" is to minimize the tedium of what is ultimately a utility service.

[1] "Why Most Digital Banking Transformations Fail" – McKinsey, June 2022.
[2] "So You Really Think You're Customer Focused?" – Oliver Wyman, 2013.

2. *Financial services products are generic and fit-for-purpose*: the goal of "customer insight" is to help marketeers to bundle, cross sell or upsell the products we already offer.
3. *Financial services' customers are typically lazy, ill-disciplined, or ignorant when it comes to managing their financial affairs*: the purpose of "customer value management" is to understand how to exploit these realities to extract value from customers in ways they will tolerate or won't notice.

At the time, I proposed the new institutional myths that needed adopting as shown next. In the passage of time since then, it's definitely the case that a number of far-sighted disrupters and incumbents have stolen a march through adopting new myths like these – they are definitely among the "2030 probable winners":

Traditional Incumbent's Institutional Myths		**Authentic Customer-Oriented Institutional Myths**
"Banking is boring"	→	*"My money and my financial health are fascinating to me, and extremely emotional"*
"FS products are generic with little scope for improvement or innovation"	→	*"My real underlying financial health needs are poorly served by generic banking products and services"*
"FS customers are basically lazy, undisciplined and/or ignorant when it comes to managing their financial affairs"	→	*"I know I am lazy, undisciplined and ignorant on my financial health – I'd value help from someone on my side"*

These new institutional myths reposition what it means to be "customer centric."

Customer centric is no longer about how the bank interacts with its customers; it's about how its customers interact with *their money*. That's the crucial gap that's been missing in the maturity transformation-oriented bank. It just can't imagine a world where the bank's solvency is the bank's problem not its customers; and in reverse – it can't imagine a world where supporting the customers' financial health is the bank's concern, and it designs its services with that pre-occupation front-and-centre.

But, now with the Healthy Money Revolution, we need to go still further. We need to recognize that banks' customer, architectural *and* leadership transformations are all mutually co-dependent – and they all succeed together, or they all fail together. But they each require incumbents to move past deeply held institutional myths:

	Traditional Bank Institutional Myths		**Healthy Money Alternative Institutional Myths**
Customer	Traditional banking products basically work just fine for customers	→	Traditional banking products are poorly suited to helping customers sustain healthy financial lives
Architecture	Traditional account-centric bank architectures are not meaningful constraints on how we operate	→	Traditional bank architectures critically constrain the innovation of valuable services that banks could provide
Leadership	Customer inertia is the main driver of bank performance	→	Customer digital engagement is the main driver of bank performance

Beliefs, of course, drive behaviours. And the institutional myths of traditional banking drives a set of behaviours that are well suited to competing in a traditional bank-centric competitive landscape – improving, but not remaking, the industry through digitizing the banks as they operate today.

The challenge is, will this (Figure 1.4) be sufficient to remain customer-relevant as the industry is being remade by non-banking incumbents (platform players, embedded finance players and BigTech)?

These players are out-growing the traditional sector at a rate of two-to-one – not by becoming banks, but by doing a better job of engaging customers and proactively supporting their financial lives. The Healthy Money Revolution is the incumbents' response. Taken seriously, it's an integrated approach to remaking traditional banking to be customer-relevant and future-ready. Taking it seriously requires challenging beliefs and resetting business priorities accordingly. The result is three mutually reinforcing transformations – customer, architecture and leadership – to build the bank of the future.

So, in addressing the question of "Do we need a Healthy Money Revolution?" – the question becomes "(How) is the structural landscape changing and does traditional banking face a crisis of relevance?," which is the question to which we now turn (Figure 1.5).

Figure 1.4

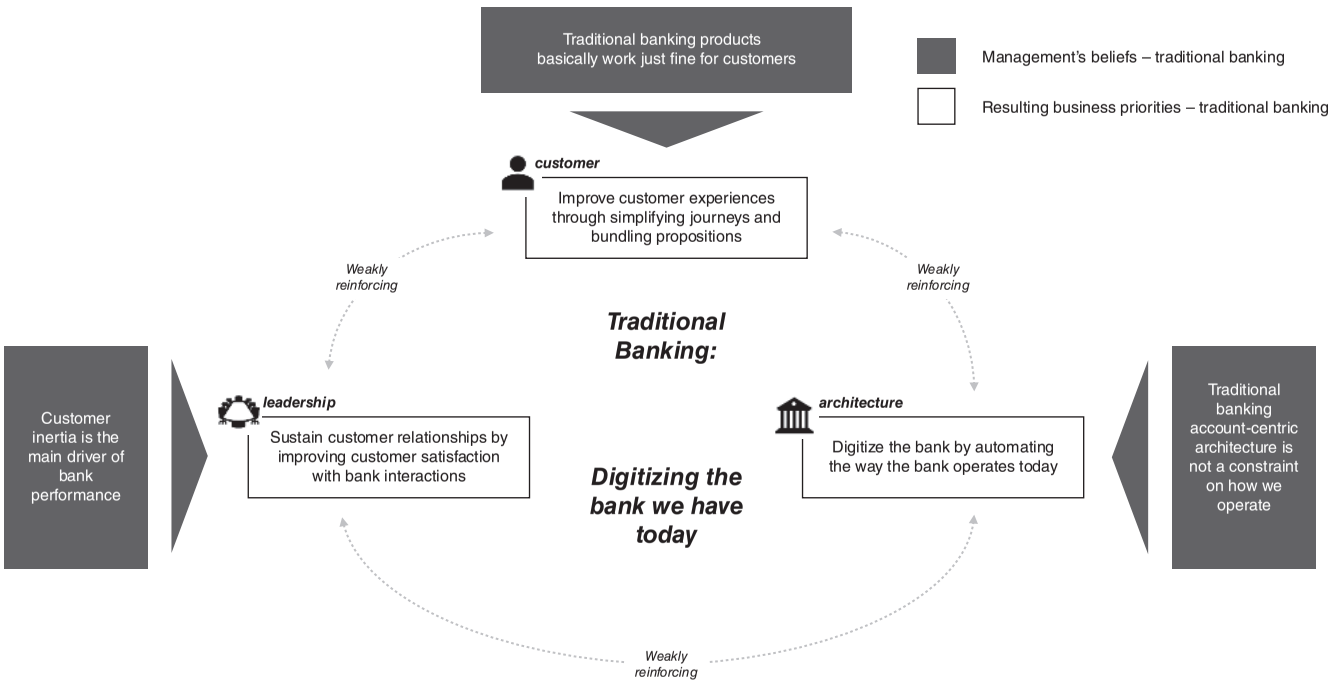
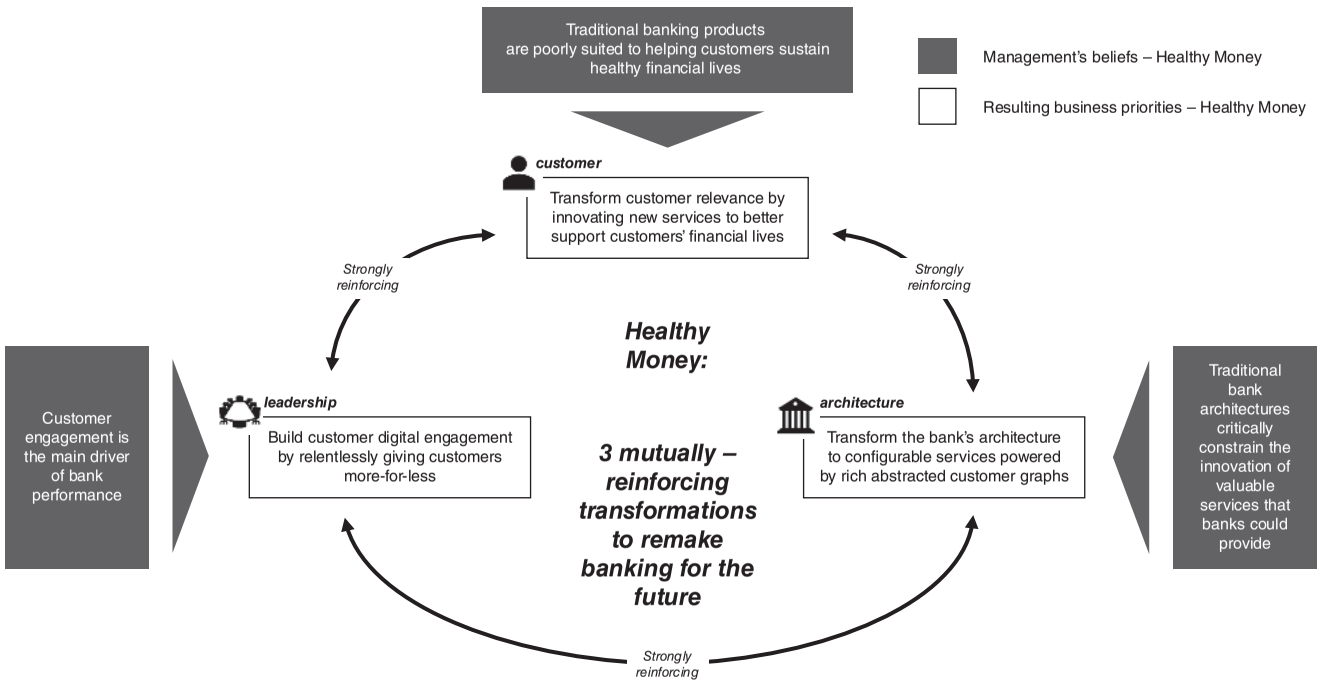

Traditional banking products basically work just fine for customers
Management's beliefs – traditional banking
Resulting business priorities – traditional banking
customer
Improve customer experiences through simplifying journeys and bundling propositions
Weakly reinforcing
Weakly reinforcing
Traditional Banking:
Customer inertia is the main driver of bank performance
leadership
Sustain customer relationships by improving customer satisfaction with bank interactions
architecture
Digitize the bank by automating the way the bank operates today
Digitizing the bank we have today
Traditional banking account-centric architecture is not a constraint on how we operate
Weakly reinforcing

Figure 1.5


Traditional banking products are poorly suited to helping customers sustain healthy financial lives
Management's beliefs – Healthy Money
Resulting business priorities – Healthy Money
customer
Transform customer relevance by innovating new services to better support customers' financial lives
Strongly reinforcing
Strongly reinforcing
Healthy Money:
Customer engagement is the main driver of bank performance
leadership
Build customer digital engagement by relentlessly giving customers more-for-less
architecture
Transform the bank's architecture to configurable services powered by rich abstracted customer graphs
Traditional bank architectures critically constrain the innovation of valuable services that banks could provide
3 mutually – reinforcing transformations to remake banking for the future
Strongly reinforcing

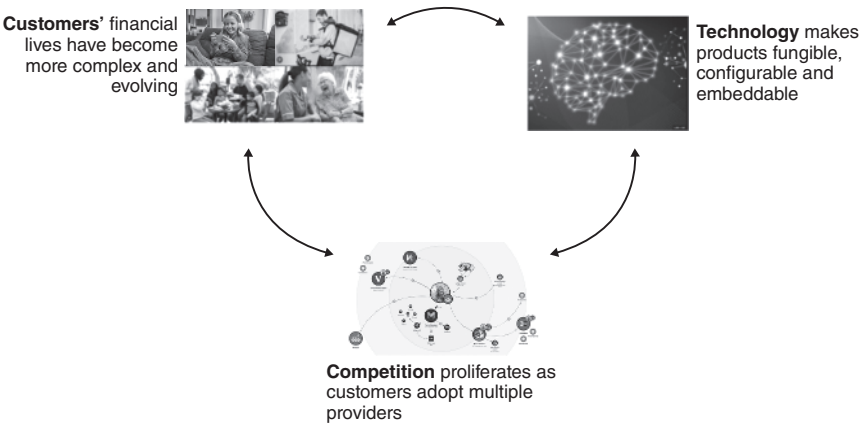
1.2 BANKING IN THE POST-BANK WORLD

The banking world is being reshaped by three structural trends working together (Figure 1.6):

- Customer financial lives are becoming more complex and networked.
- Technology is making financial services configurable, fungible and embeddable.
- Competition is becoming more continuous/relentless, with customer using multiple providers (banks and non-banks) simultaneously and adapting between them increasingly fluidly and continually.

Whilst individually, these trends each can have material impact, together, they are fundamentally changing the basis of competition in the industry. We'll discuss them in turn and then return to their implications.

Figure 1.6



Evolving Financial Lives

Fundamentally, today's banking product set is the legacy of another age.

A generation ago, the vast majority of people in the UK/US lived a relatively conventional life. They left school and they got married. They married once and had one set of children with the one life partner. They owned (or rented) one house. The household's principal (sole) breadwinner (usually the man) had one or two lifetime employers as their sole source of income throughout their working life. Their employer provided them decent job security and income security in employment and after. They worked full time through their working life, they retired at 65 on a state and/or final salary pension and, on average, died about 10 years later. Things may not always have been comfortable, but they were relatively reliable.

And the banking product set we have today – current accounts (single or joint), credit cards and credit histories, 25-year owner-occupier mortgages, long-term savings into pensions, later life annuities, etc., all seemed to fit this world of relatively stable families, stable work lives, stable communities and reliable safety nets pretty well.

But today – our customers don't live in that world.[3]

They live in complex blended families with kids from multiple relationships (over half of UK teenagers live in a household that doesn't include both biological parents). They juggle with work, parenting and caring for the generation before them (one in eight working adults have an adult care dependency). They work for lots of employers over a lifetime (UK average is 12 employers per lifetime); they increasingly work in precarious contingent/gig work (perhaps 25% of UK workers) or augment their income with side hustles (over 40% of UK employees under 34 do today). They continue working long past notional retirement age (32% of post-65 seniors in US

[3] Deloitte's Fusion Customer Analysis.

are still working). Their life expectancy beyond 65 has doubled in the last 30 years; and later life care needs exploded. Their long term wealth is increasingly trapped in unfungible housing assets; and the value of these has made young peoples' access to the property market increasingly remote – with two-thirds of new homeowners under 35 requiring support from Bank of Mum and Dad.

And the next generation is completely digital native. They don't use cash. They get their first smartphone at 10 years old, long before they can have a bank account. And so, they want to get and spend their pocket money digitally from day one. They habitually use and exchange an array of digital currencies on their gaming platforms (Robux, V-bux, World of Warcraft Gold, etc.). And, once teenagers, they use embedded finance capabilities to buy and resell online (with Klarna, Vinted, etc.), and so are growing up not needing banks or credit cards to fund their lifestyle.

For all these reasons, the traditional banking product set is just no longer good enough. Banks argue the above means the product set needs "tweaking," "repackaging" or "better communicating" – but that's simply outsourcing the problem to customers. In truth, it needs a more fundamental renovation, something that the digital disrupters are providing the lead on. In the next section (Chapter 2), we will discuss four customer archetypes that illustrate the limits of the traditional banking product set in supporting modern financial lives (Figure 1.7).

Evolving Competitive Landscape

The financial services competitive landscape is changing too. We are probably now in a third phase of digital disruption focused on *customer engagement:*

2000–2010 – Digital activation	Banks adding digital channels as a complement for branch and human channels, to reduce customer cost to serve on "low value" transactions
2010–2020 – Digital experience	Digital disruptors reset the industry standards for painless digital-only banking, massively simplifying customer journeys (painless onboarding, biometric authentication, instant digital loans, etc.)
2020 – Digital engagement	Digital players unbundle and rebundle traditional banking services around engaging customers on their financial lives, including embedding financial services within other non-bank digital experiences and platforms

Figure 1.7

Sources: HBS/Monkey Business/ZOI Adobe Stock Photos; kali9 Getty Images.



Digital Native

A digitally native generation currently transitioning from financial dependence to a new form of financial independence. This is an experience-oriented, digital only, Generation Rent community



Financial Juggler

A broad and fast-growing group of banking customers, they include gig workers but also side hustlers, contractors, freelancers, members of the "creator economy" and so on. They are financially very active – typically have multiple jobs and multiple sources of income, a lot of which is volatile and insecure



Modern Family

Modern families and households with evolving and complex financial inter-dependencies; reflecting the modern realities of blended families, blended personal and business finances and inter-dependent and evolving financial responsibilities – for children, for adult care, for Bank of Mum and Dad, for house-shares and so on



Complex Decumulator

Decumulation, the "nastiest and hardest problem in finance" has become exponentially more challenging for a new generation – as they face great uncertainty (30+ years of post- retirement age living, potentially for expensive care dependency), combined with much more personal responsibility for their decumulation decisions *and* a broader range of unfungible and ill-liquid wealth sources (including houses) to manage

In this digital engagement phase (Figure 1.8), it's no longer enough to offer digital customers a "frictionless customer journey." That's increasingly table stakes. That's because "customer journeys," no matter how frictionless, are still all about making the *bank* easier to deal with – i.e., it's still all about the bank, not about you and your money! Now, disrupters are unbundling and rebundling the traditional industry products and experiences – to better engage customers about *their* actual financial lives and better embed their services into customers' broader everyday lives.

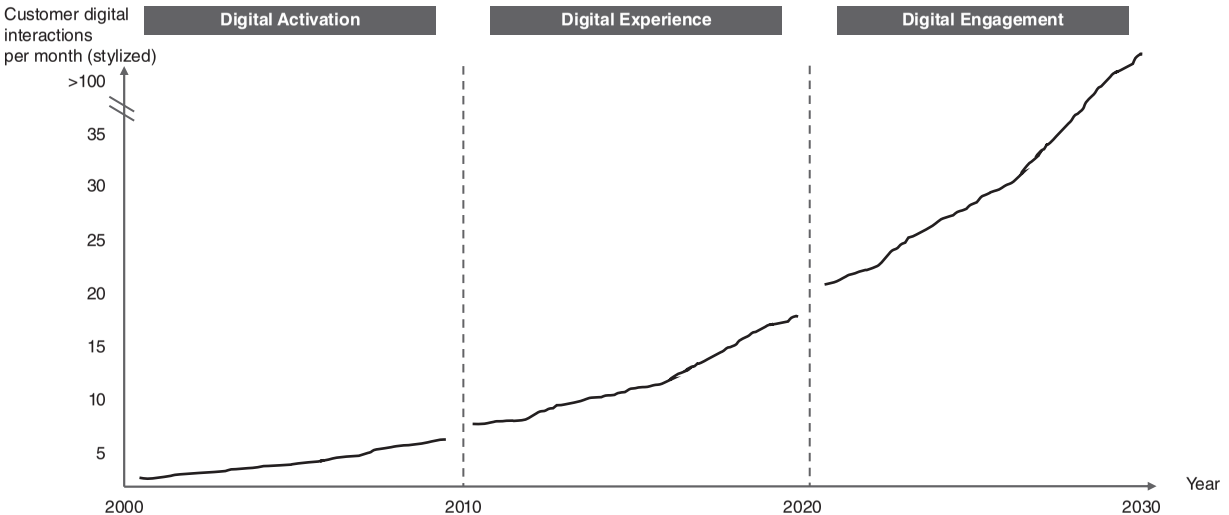
Its less about making it easier for the customer to come to the bank, and more about having the bank come to the customer and be relevant for them. This means the competitor set is no longer just "challenger banks" – Atom, Metro, Starling – but also wider platform and engagement players and non-banks – Revolut, Shopify and Uber Money, and also the Apple Wallet and Amazon Supplier Central.

And customers' banking behaviour is adjusting too. We used to talk of "primary" banking relationships. Customers would have one main banking relationship, where they would aggregate their financial needs with one provider, who could rely on inertia and friction sustaining customer relationships overtime.

In the "digital experience" era, these incumbents feared customers *switching* to new challenger banks with better experiences – i.e., moving their main banking relationship to a new player like Starling or Monzo and closing their incumbent relationship. But that's not what's happened. Customers haven't *switched* to these players, they have *added* these new players as compliments, not substitutes. In many cases – as customers self-organized workarounds to all the complexities in their lives mentioned above.

In a sense, the industry has outsourced addressing its shortcomings to its customers. Increasingly, they keep a main account with an incumbent bank but then use a range of other providers to support their wider money management needs – pocket money apps (e.g., goHenry) for their kids'

Figure 1.8



	Digital Activation	Digital Experience	Digital Engagement
	• Branch-led banking • Digital as an addition low-cost channel • Digital targeted at reducing cost-to-serve – removing low-value transactions from expensive branch/F2F channels	• Mobile-first banking • Mobile app as the primary channel • Non-digital channels (call centres/branches) provide support to mobile-first banking, and resolve customer concerns/disputes/ recoveries etc	• Banking embedded into customers' digital lives • Mobile as primary interaction – through bank-curated and third-party apps • Digitally-embedded services; AI-driven and human channels to resolve customer concerns/disputes/ recoveries etc
	Drive Digital Adoption	*Streamline and Simplify Customer Journeys*	*Deepen and Extend Customer Engagement*
Competitors:	• **Other incumbent banks**	• **Other incumbent banks** • **Neo-banks / digital-only banks**	• **Other incumbent banks** • **Neo-banks/digital-only banks** • **Embedded Finance players** • **Platform players and BigTech**

accounts, jars apps (Monzo/N26) for budgeting controls; currency apps (Wise/Revolut, etc.) for travel; as well as different players for aggregating long-term savings (e.g., PensionBee or Plum or alike), for maintaining spending discipline (e.g., Emma or Hyperjar or alike) and for buying on line (Shop by Shopify or Klarna or alike) etc. (Figure 1.9).

Evolving Basis of Competition

This all means the basis of competition is altering – from inertia-based competition to engagement-based competition.

Digitization, in any industry, can transform competition to being more "in the moment." As durable goods become pay-for-use goods, durable goods manufacturers are suddenly having to compete for an impulse purchase "in the moment," where previously it was a planned and thought-through one. For example – in the car industry. Today we buy a car. It's a considered purchase based on brand and features and experience. Car makers (BMW, Ford, GM) make cars that fulfill the needs for the customers' functional and emotional experience of ownership.

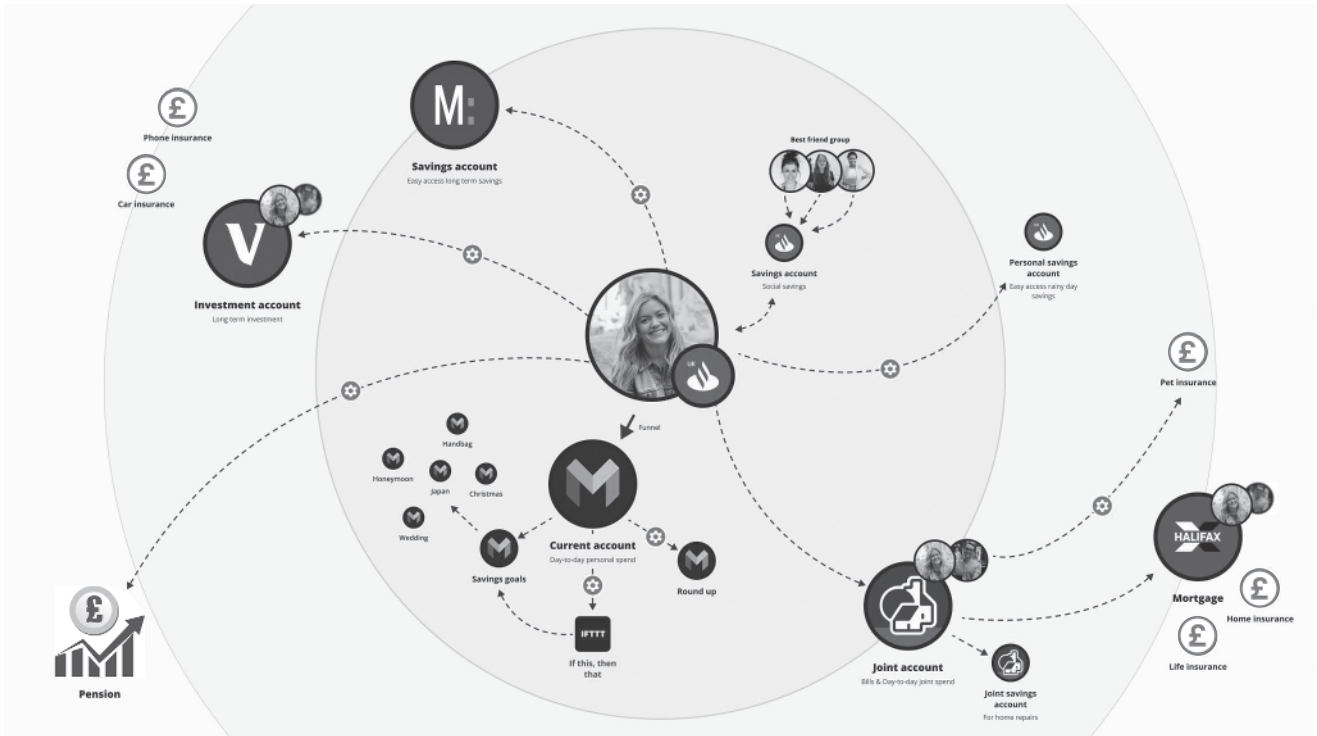
But if/when, tomorrow, driverless cars mean we don't buy cars, we rent them for individual journeys. Suddenly, our choice is very different. We might rent the car that best suits our needs for the specific journey – e.g., nipping to the shop versus taking a road trip. But we also might choose the car, in that moment, that is most relevant to, and engaged with, us personally e.g., the one that remembers our preferred driving routes, or seat and mirror positions; or the one that is integrated with other aspects of our lives – our wallets, our calendar, our network of relationships. Suddenly, cars will compete not only on the customer experience of the car, but the customer *engagement* with the customer's driving life, and their wider life.

And so in banking.

In the inertia-based competition of the past, customers tended to consolidate their financial needs with one or two providers (like a car owner

Figure 1.9

Sources: HBS/Monkey Business/ZOI Adobe Stock Photos; kali9 Getty Images.



only having one or two cars). Adding a new provider was painful and time consuming and the services were similar across providers. So sticking with one "primary bank" made sense. In this world, the objective of the bank was to acquire customers, and then to satisfy them sufficiently that they weren't tempted to leave. But that was it. In the end, this was relying on customer inertia to keep stable annuity revenue streams over time.

But as customers have found it much easier to add new providers digitally – and they've seen the proliferation of innovative new services from these new providers – they've added these providers into the mix, splitting their engagement across multiple players.

Whilst the incumbents may still have much of the historic balances at the moment, they no longer have the monopoly of their customers' attention and engagement. Customers may still have their salary paid into the incumbent bank account; but as they start using other players for their in-month money management – Starling for their family banking, Tide for their side hustles and Revolut for their overseas travel and so on – they are developing and evolving their financial habits outside of the purview of the incumbent bank. And that's a precarious place for the incumbent to be – as the alternatives get better and offer more services, they will likely grab an ever bigger slice of the customers' financial lives and banking wallet.

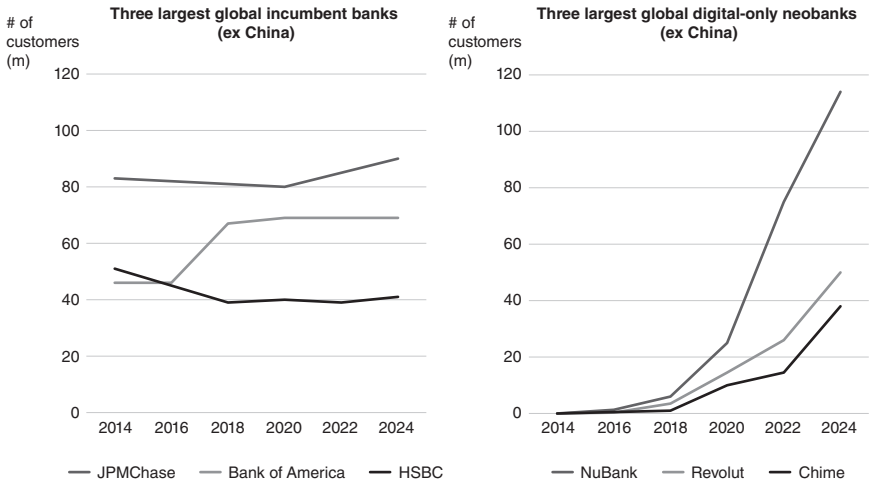
Customers in this world don't switch away from incumbents, they drift away overtime. Sustaining and building their engagement becomes the critical challenge for incumbents looking to retain, deepen and extend the value of their customer franchise.

It's this world of more complex customers' financial lives, of a broadening competitive landscape and of increasingly engagement-based competition that provides the backdrop for the three transformations – customer, architecture, leadership – to which we will shortly return.

1.3 CASE STUDIES – DIGITAL-ONLY EXEMPLARS

At the time of writing, late in 2024, the largest incumbent banks in world (from a customer base perspective) are just being overtaken by the largest digital-only neobanks. In that sense, the torch is being passed to the new, digital generation. As of the end of 2024, the three largest banks (outside China) – JPM Chase, Bank of America, HSBC – have a combined customer base of around 200 m. The three largest neobanks – **NuBank, Revolut and Chime** – collectively passed that number sometime during 2024 and are continuing to grow explosively (Figure 1.10):

Figure 1.10



	Revolut	nubank	chime
Launched/ Founders	2015, London Nikolay Storonsky, Vlad Yatsenko	2013, Sao Paulo David Velez, Cristina Junqueira, Edward Wible	2014, San Francisco Chris Britt, Ryan King
Model	e-Money institution, although now has a UK banking license with restrictions	Digital-only neobank	Financial Technology Company providing fee-free mobile banking services through two US banks (Stride and Bancorp)
Mission	*"to help customers improve their financial health and promote financial inclusion …"*	*"to fight complexity* *to empower people" …* *"to help simplify and organize peoples' financial lives"*	*"to unite everyday people to Unlock Financial Progress"*
Current Coverage	48+ Countries	Brazil, Mexico, Columbia	US only
Key Services	• Low cost, simple multi-currency banking • Stock trading/ crypto currency exchange • P2P payments	• No fees banking • Money box – personalized savings/dynamic deposits • Digital P&C insurance • Advanced fraud detection • Instant credit and personalized mobile plans • Family banking	• No fees banking • Early access to pay checks • Negative balances w/o overdraft fees • P2P payments • Automated, hi-yield saving • Credit builder secured credit card • State and Federal tax flling

One way of interpreting these players success, and forecasting their future scope, is to see their disruptive future orientation as less about a fancy new world, and more about a reassertion of something more eternal and basic.

A central contention of this book is that modern digital technologies (event-based data-streams, graph databases, smart contracts, open APIs and responsive UI/UX) can enable banks to rearchitect to massively transform their customer relevance. More precisely, though, these technologies enable them to reassert their fundamental, enduring role(s) in society – but doing so in a modern context.

A well-functioning, accessible financial sector represents a critical underpinning of any vibrant market economy.

As the world's 1.4bn unbanked will attest, economic actors need simple readily accessible financial instruments to operate effectively in an exchange economy.[4] Without access to them, economic actors are reduced often to a near-subsistence existence – fending essentially for themselves or in small, trusted local barter groups.

A well-functioning, widely accessible financial services sector enables economic actors in society to differentiate and specialize, to promote enterprise, to exchange with strangers, and to manage risks and bad luck. It enables markets to function and develop, an economy to grow, innovate and thrive, and it enables households to participate in that economy with autonomy and agency.[5]

And the market economy, even in the most developed markets (the US/UK, etc.), is never the finished article: it's a vibrant evolving beast, subject to new development and growth. Today, for example, digital interactivity and embedded finance are enabling whole new markets/forms of exchange to develop from thin air – whole new markets from "renting my empty flat for a night" (e.g., Airbnb) to "sharing a solar panel

[4] See "Banker to the Poor", Muhammad Yunus, 1998.
[5] See, for example, "The Ascent of Money", Niall Ferguson, 2019.

across multiply houses" (e.g., Solar Together) have been created in recent years. Financial innovation fuels this market development – driving up productivity and asset utilization and driving down the risk of specialization and exposure to fluctuating incomes.

The financial sector does so by addressing five enduring customer challenges of everyday financial management[6]:

1. How to move income across (short) time periods from when its earned – e.g., once or twice a month – to when it's spent each and every day?
   (Note – this short-term alignment of money in/money out we typically call "working capital management").
2. How to move income across a lifetime, from life periods of excessive earning to life periods of excessive consumption?
   (Note – this long-term alignment of money in/money out we typically call "wealth management" or "investment").
3. How to enable frictionless, reliable and trusted exchange and commerce?
4. How to protect income and/or consumption against rainy days/bad luck?
5. How to manage all the above effectively and efficiently, with good habits and disciplines?

In understanding any technological disruption it's always helpful to fall back on the fundamental role(s) of the sector.

The banking sector isn't here to offer credit cards or bank accounts or wealth advice. Those products are the current, transitory, imperfect ways the sector looks to perform the five roles above, today. The "Healthy Money" Revolution is about how modern digital technology can enable

[6] See, for example, "Money", David McWilliams, 2024.

banks to reinvent how they fulfill these basic roles, in new and better ways than they were able to before.

In 2003, when Jeff Bezos was, allegedly, asked how Amazon kept pace with the rapidly changing technology landscape and discern the critical, impactful technology changes from the short-term fads and hype. His answer was to point out that Amazon was not focused on what was "fast changing," but rather it kept a steely focus on what *remains the same*.

In his view, reportedly, customers for his marketplace platform would always want products quicker, cheaper and more securely. They would always want more choice and more help making choices. And they'd want more reliable service, and better assurance. His point was, Amazon focused on getting ever better at serving these *non-transient customer needs*, the things that remained the same overtime – and they'd leave focusing on the tech fads to others.

By analogy, these neobanks (Revolut, NuBank, Chime and the others) are profoundly mission-driven. But their mission is not so much a focus on what's new, it's a refocus on what's enduring, but in a modern context.

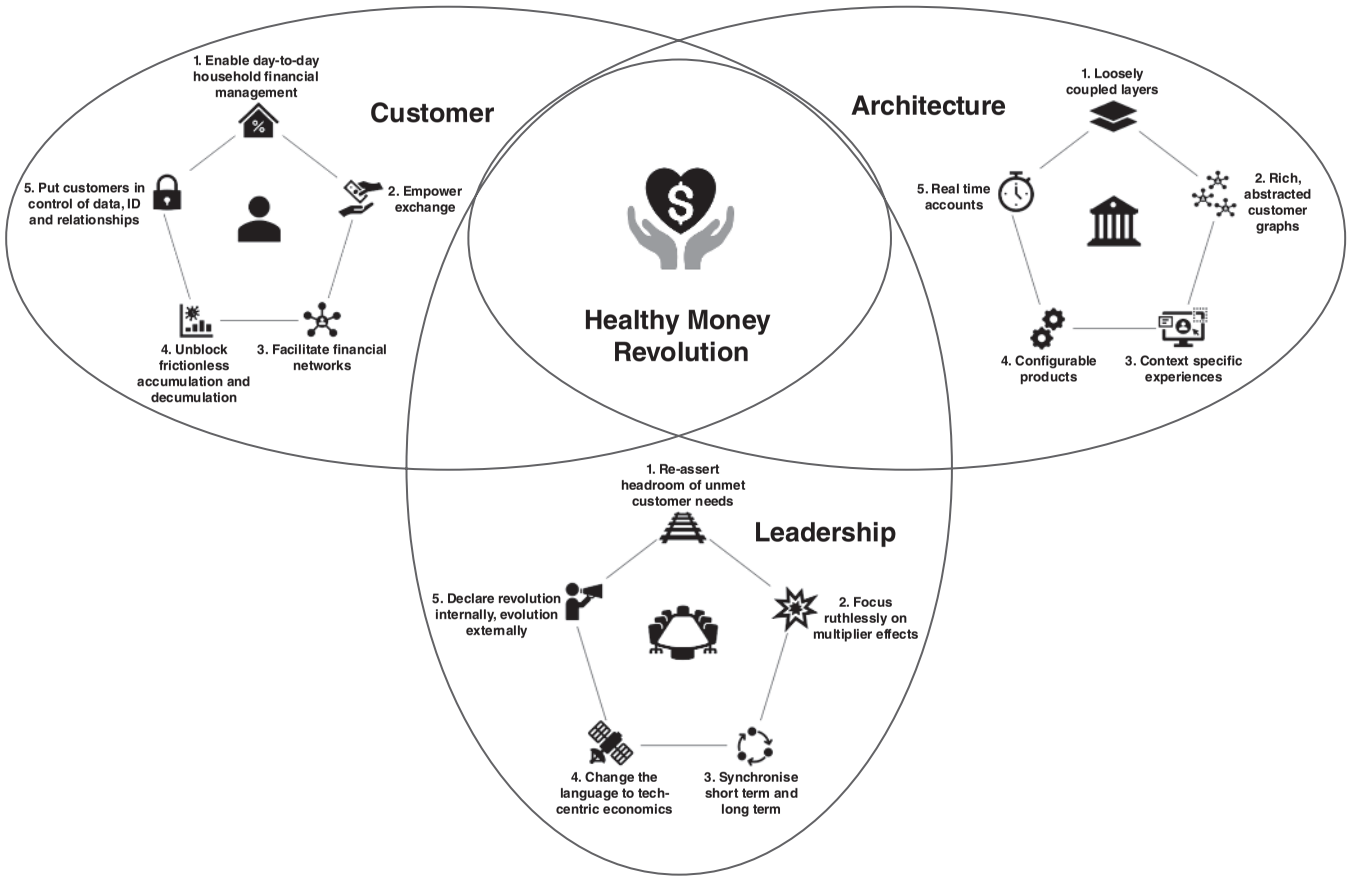
Banking and Finance is a 5,000-year-old industry that has re-invented itself multiple times to better perform these same five roles in more relevant ways. The advent of digital interactivity unlocks a new step change for the sector, to renew its relevance in this new context. "Healthy Money" is about how banks (incumbents and neobanks alike) can make that renewal.

1.4 OVERVIEW OF THE THREE TRANSFORMATIONS

In the later sections of this book, we will discuss each of the three transformations at length. However, in this section we wanted to provide an overview of each of them, to provide a view on the scope of the change implied and its rationale (Figure 1.11).

Figure 1.11

Sources: Courtney Cook/Jake Nackos/Marie-Michèle Bouchard UnSplash.com; Paulo/Jibongfx/Alex/Funtastech Adobe Stock Photos.



Firstly, Customer

As we've argued, the bank of the future means a big rethink on **how banks deliver customer value**. Indeed, banks should reset their core objective from "making and selling banking products" to "developing and delivering engaging services that enable customers to have financially healthy lives and lifestyles." However, like in every industry, most seasoned bank executives can struggle, as we are all prone to, with conflating the existing product features with customers' underlying needs.

In Chapters 2 and 3 we will be profiling some modern customer archetypes; to bring to life the challenges people are seeking their financial services partners to help them with. We will use these to support the five customer themes, and the suite of 19 services, that we summarize below.

But in shorthand here, we'd make a few broad observations about a needs-based approach to banking.

Overall, of course, generically, customers need help from their banking partner to operate their financial lives in a few basic ways: managing monthly working capital, facilitating lump sum purchases, engaging in commerce and exchange and transferring wealth between life-stages. The banking product set of current accounts, credit and debit cards, mortgages, SIPPs, annuities, insurance and alike all support these roles imperfectly.

Five issues come up again and again on how the generic banking product set falls short of really enabling customer's healthy financial lives:

Firstly, **backward looking**. Customers interact with banks about the status of their individual products with the bank (i.e., their balances and transaction histories on each of their bank accounts, credit cards, lending products, etc.). Because these views are by product it's really hard to see an aggregate position overtime (although banks have been looking to use open banking services to help build these aggregate views).

But even once aggregated, of course, these views aren't that helpful in understanding how healthy your financial situation is at any point in time – because they are completely backward looking.

For most people, their balances sawtooth up and down on a monthly cycle. They peak on payday and then decline through the month, subject to predictable and unpredictable spending. And then they jump back up on the next payday. Nothing in how you interact with the bank brings to life where you are relative to that sawtooth at any given moment. As such, everyone just accepts – you're not interacting with the bank about *your financial status* or financial health; you're just talking to them about the status of your relationship *with them* – what you owe the bank/what the bank owes you.

Secondly, **siloed**. Customers have financial relationships with the people around them – with family, colleagues, friends, suppliers, customers and alike. They seek to manage these financial relationships through aggregating/pooling some resources and managing how they are used in conditional ways. Sharing and co-managing resources is incredibly central to the bounds of trust we form with those around us. But the individual siloed orientation of bank account-based products excludes the bank from supporting these activities naturally. Instead, customers themselves end up creating their own workarounds for pocket money, kitty money, split the bill, workplace colleague collections, shared travel, wedding lists, supplier credit, etc. etc.

Thirdly, **fungibility**. The bank's traditional product set creates a lot of work for customers they didn't ask for and don't value. If customers could operate their day-to-day finances through fungible deposits and credit lines, they could see and manage their financial sawtooths through the month, foresee upcoming commitments and oversee active spending controls for themselves and their dependents. Instead, they are constrained by arbitrary, unfungible product distinctions fulfilling overlapping needs imperfectly. For example, distinguishing between transactional current

accounts and credit cards for everyday spending or distinguishing between sources of revolving credit (e.g., credit cards) versus sources of installment credit (e.g., personal loans). What most customers would find much more useful is fungible accounts and fungible credit lines but surfaced together in ways that give them oversight and control on income and spending.

Equally, transferring wealth across time is also fraught with painful product distinctions that add confusion, limit control and weaken resilience to bad luck. In truth, the customer distinction between a mortgage and a long-term saving product is overstated. For a generation of the population, the setting aside of mortgage payments each month has been the most reliable investment in long-term wealth accumulation that they have been making. But, the growth in housing wealth (among other things) has exacerbated the many challenges in making wealth accumulation frictionless and joined up across asset classes; and later life decumulation the same. A rethink of this entire product set is needed.

Fourthly, **exposing**. Commerce, economic specialization and financial exchange are all heavily dependent on trust. When we feel vulnerable and unprotected, our horizons narrow. At the extreme, we are less willing to depend on others and to take risks. And when we all do that, the economy shrinks and everyone's prosperity suffers. A dominant underlying need customers have of their banking partner is to help protect them as they conduct their financial lives – protect them from bad actors, from bad habits and from bad luck. This gives them the confidence to expand their financial lives and do more things.

Protection isn't just about insurance products; customers see protection in all areas of the banking product suite – commerce protection in credit cards, rainy day/bad luck protection in accessible, untapped credit lines, savings protection in deposit guarantees, etc. In short, economic protection, in all its forms, is a dominant but under-played feature of the entire banking product set.

But digital innovation, gig working and digital commerce demand (and also enable) whole new levels of economic protection. Try-before-you-buy, mortgage holidays, micro-insurances, pay-as-you-go, instant credit, Bank of Mum and Dad, biometric authentication and threat monitoring, etc. can all be seen as forms of protection designed to give customers the confidence to consume, to commit and to engage robustly in the economy. A bank focused on helping customers enjoy healthy financial lives would take much more seriously its role as a source of protection.

Moreover, the banks' product orientation means they miss lots of ways they could help customers to *put themselves in control* of their money, of their financial relationships, of themselves and their habits and of their data and identity. The high-value banking partner ensures its customers are well placed to be, and to feel, totally in control.

Finally, **isolating**. Money and financial health are the last great unsayables of our age. These days we can talk with our close friends about nearly anything – about sex, health, family differences, work travails – anything, except money. Money remains the great unsayable. We can't discuss with anyone how their finances compare to our own; and we are left isolated by a wall of socially induced silence on the topic of money habits, saving and financial well-being.

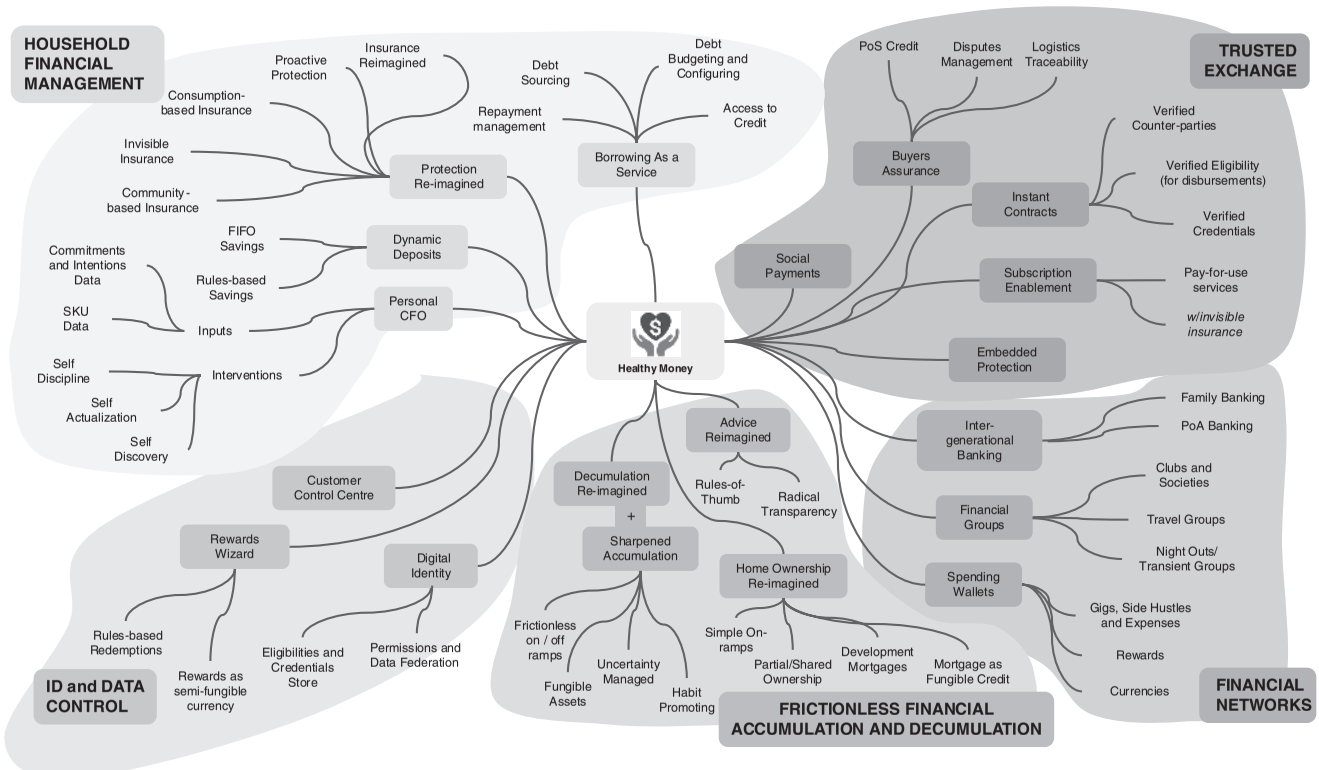
As a result, nobody knows if they are handling their financial lives effectively or ineffectively. We are all told by financial advisors that we aren't saving enough – but not everyone can be not saving enough! And besides the financial advisors would say that, wouldn't they. So, we are stuck; feeling isolated and concerned we've got it all wrong but no idea if our money habits are typical or eccentric.

A financial life partner clearly needs to see a core role as being helping people understand how others are doing, and how others are doing it.

With those general comments, we propose five themes that define the financial health-oriented bank. As we'll argue later, all these areas are the subject of critical innovation from incumbents but also from disrupters, platforms and BigTech players (Figure 1.12)

- *Enable day-to-day household financial management:* unbundle and rebundle basic banking products around three enduring customer needs – enabling disciplined household working capital management, financing lump sums and providing rainy day protection.
- *Empower exchange*: extend payments capabilities to address the trust barriers that limit real-world exchanges – across P2P, e-commerce, sharing economy, experience economy, etc.
- *Facilitate customers' financial networks***:** redesign customer management away from rigid account structures to more flexible relationships and rules – to enable customers to establish and control interactive financial relationships – within families/households, between households/small businesses, in clubs, societies, groups, etc.
- *Unblock financial accumulation and decumulation*: – redesign wealth from focusing on "wealth management," i.e., asset allocation, to unblocking the real world barriers to accumulation (mortgage access, endowment effects, etc.) and to decumulation (e.g., for household changes, income changes, etc.).
- *Put customers in control of their money, relationship(s) and data*: empower customers to control their relationship with the bank (services used, interactions provided) and act as trusted, secure custodians of customers' valuable personal data, and digital identities.

Figure 1.12


HOUSEHOLD FINANCIAL MANAGEMENT
Proactive Protection
Insurance Reimagined
Consumption-based Insurance
Invisible Insurance
Community-based Insurance
Protection Re-imagined
Debt Sourcing
Debt Budgeting and Configuring
Repayment management
Access to Credit
Borrowing As a Service
FIFO Savings
Dynamic Deposits
Commitments and Intentions Data
Rules-based Savings
SKU Data
Inputs
Personal CFO
Self Discipline
Interventions
Self Actualization
Self Discovery
Healthy Money
TRUSTED EXCHANGE
PoS Credit
Disputes Management
Logistics Traceability
Buyers Assurance
Verified Counter-parties
Verified Eligibility (for disbursements)
Instant Contracts
Verified Credentials
Social Payments
Subscription Enablement
Pay-for-use services
w/invisible insurance
Embedded Protection
Customer Control Centre
Rewards Wizard
Digital Identity
Rules-based Redemptions
Rewards as semi-fungible currency
Eligibilities and Credentials Store
Permissions and Data Federation
ID and DATA CONTROL
Advice Reimagined
Decumulation Re-imagined
Rules-of-Thumb
Radical Transparency
+
Sharpened Accumulation
Home Ownership Re-imagined
Frictionless on / off ramps
Uncertainty Managed
Fungible Assets
Habit Promoting
Simple On-ramps
Partial/Shared Ownership
Development Mortgages
Mortgage as Fungible Credit
FRICTIONLESS FINANCIAL ACCUMULATION AND DECUMULATION
Inter-generational Banking
Family Banking
PoA Banking
Financial Groups
Clubs and Societies
Travel Groups
Night Outs/ Transient Groups
Spending Wallets
Gigs, Side Hustles and Expenses
Rewards
Currencies
FINANCIAL NETWORKS

	Challenge with Today's Banking Product Set	Elements of the "Healthy Money" Reinvention
Enable Day-to-day Household Financial Management	• product set defined by banks' manufacturing process – e.g., credit, debit, transactionss • as a result, retail banking products – individually and collectively – imperfectly support customers' underlying everyday needs • household working capital management • lump sum financing • rainy day protection/cover	1. **borrowing-as-a-service** – unbundle borrowing value chain into flexible service elements; re-orient each for customer control 2. **protection reimagined** – provide customers comprehensive means to protect against everyday bad luck 3. **FIFO savings** – remove ex ante (product) distinctions between liquidity and ROI 4. **personal CFO** – leverage analytics, plus all of above, to help customers make good choices and support good habits financially

Empower Exchange	• "payments" services accentuate the money transmission process, but exchange in the real world is limited by extent of trust
	• "empowering exchange" recognizes opportunities to create more exchange through extending trust:
	  • trust in process
	  • trust in counterparties
	  • trust in product/ service value
		1. **social payments** – expand P2P exchange by combining payments with social messaging to enable simple, human assurances and reciprocity
		2. **buyers' assurance** – expand e-commerce payments through extended commerce protections/returns, etc.
		3. **instant contracts** – enable sharing economy exchange through integrating exchange of money with counter-party identity assurances

(continued)

(continued)

	Challenge with Today's Banking Product Set	Elements of the "Healthy Money" Reinvention
		4. as-a-Service enablement – enable pay-for-use economy with embedded contingent payments and dispute management **5. protection reimagined** – expand experience economy exchange, by building in protections against poor/unlucky experiences
Facilitate Customers' Financial Networks	• bank accounts focus solely on customers' relationship with bank and do not allow customers to define/manage their own financial relationships with others (in the family, with partners/friends/clubs etc.) • enabling customers' financial networks means enabling customers to flex and manage conditional access, oversight and view-ability of financial partitions	**1. inter-relational banking** – enable customers to manage their financial relationships (dependent, sharing, etc.) flexibly and simply **2. financial groups** – enable customers to operate (in-) formal financial groups – interest groups, travel groups, communities, etc. **3. spending wallets and rules** – enable customers to control their different earnings and spending wallets (gigs, rewards, currencies, jars) according to flexible user-controlled rules

Unblock Financial Accumulation and Decumulation	• wealth products give primacy to asset allocation not sufficiently addressing:
	  • accumulation challenges
	  • decumulation challenges
	• … and do not consistently integrate housing wealth
		1. sharpened accumulation – translate success of "mortgages as a savings product" into other wealth accumulation forms

	Challenge with Today's Banking Product Set	Elements of the "Healthy Money" Reinvention
		2. decumulation reimagined – enable household wealth to be drawn-down/split/ re-aggregated over a lifetime – to respond flexibly to the unpredictable changes in household status, employment status, health events, etc., we now expect over a lifetime **3. home ownership re-invigorated** – address rigidities in "housing ladder" (including through reinventing "Bank of Mum and Dad,""equity release," etc.) **4. advice reimagined** – rethink "financial advice" as promoting/enabling good habits and good choices
Put Customers in Control of their Money, Relationship and Data	• product-by-product level origination and servicing undermines e2e customer relationship • bank defined servicing model limits customers' ability to control relationship/interaction model • bank-centric data model means customers do not "own" (and control access to) their own data	**1. customer control centre** – enable customers to set/edit/manage their bank relationship – i.e., touchpoints used, products used, interactions/alerts/ messaging enabled, etc. **2. digital identity** – enable customers to control their data – and federate/ revoke access to it for the bank and third parties **3. rewards wizard** – promote relationship-wide rewards and maximize redemption flexibility

Next Architecture

As we've argued, one of the barriers to delivering the bank of the future is the logical architecture underpinning how incumbents operate. Modern technology and data architecture – API gateways, event streaming platforms, graph databases, cloud service platforms, etc. – provide a myriad of opportunities to redesign and rebuild how the bank operates and to capitalize on customers' digital-orientation to build much more productive operations that improve customer experience, bank controls and bank partner-ability all at the same time.

However, the scale of this opportunity is often missed because internal decision-making and investment processes end up having the wrong conversations – discussing *features and requirements*, on the one hand, or *platforms and applications* on the other. But never focusing on evolving the **logical architecture** of the future bank itself.

The logical architecture is not a technical problem, it's an organizational, semantic, or ontological problem of how we define/evolve the pieces of our operation and how we structure and police them to work together. Ultimately, it's a business problem – it critically bounds the services the bank can offer and the innovation improvements the bank can deliver. It also defines the capacity for productivity improvement and cost out.

Most incumbent bank Chief Executives see architecture as not really their problem to solve. They don't feel they understand it; and most don't feel the need to try to understand it. Moreover, the reality of most bank logical architectures is they aren't the manifestation of a well thought through top team decision-making exercise. They've evolved haphazard to where they are today through a series of incremental steps, missteps and workarounds.

Sometime in the past the bank will have implemented a central core banking platform. Batch-based and static, it was well suited to its time – the era of branch-based banking with early branch closing and mid-afternoon transaction cut-off times. As banks added ATMs and PoS, retail foreign exchange and digital banking, workarounds to create pseudo 24/7 real-time features got added on top, or off to the side. Separately, workflow systems were added to digitize capabilities and user journeys from credit checking to fin crime monitoring, to provisioning, to complaint handling and so on.

The resulting architectural spaghetti is understandable and, in many ways, inevitable. But that doesn't mean banks need to live with it. Enterprise architects in every bank draw up transition plans to simplify the architecture and take it to the next level. But they can't rearchitect the bank on their own. Only the Chief Executive and leadership can rearchitect the bank.

It may be the most significant divide of our age between the "2030 probable winners" and the rest. For the leadership teams of the rest, the bank's architecture is viewed as not a problem, or at least, not *their* problem. But for the "2030 probable winners," the Chief Executives see driving the bank's re-architecting as core to their role as transformation champions.

We will talk in Chapter 4 on the nature of the transition needed, and in Section 5.8 on how bank leaders can evolve the architecture progressively and sequentially overtime. But, as a starting point, we summarize here the challenges to address.

Current bank logical architectures are flawed in four respects:

Firstly, they are *insufficiently modular and layered*: legacy bank platforms/architectures are relatively monolithic – difficult to reuse, difficult to continuously improve and difficult to unbundle and

rebundle into new innovative services and experiences. Product core platforms often have their own discrete product sets – credit card platforms, bank deposit platforms, mortgage platforms, etc., making hybrid, rebundled or open product innovations very difficult. This is often exacerbated by having captive workflow systems and their own captive and static customer data and data stores.

Secondly, they *hardwire customer–product–account relationships*: bank platforms/architectures centre around individual "accounts." These are central for bank record keeping (of who owes who what) but hugely compromise the banks' ability to support customers. Banks – in general – hugely underplay their (potential) role as a custodian of customers' data and identity. Analogous to national patient records in the health sector, abstracting customer data and event histories from core product systems is central to the bank becoming the customers' financial life partners, as we will be discussing later.

Similarly, abstracting product design into configurable components is critical to enabling many of the services we will discuss in the customer transformation – fungible credit lines, data-rich/configurable payments and exchange services, FIFO savings, smart, configurable spending controls, fungible long-term wealth transfer and mortgages, context-specific protection, relationship-wide pricing and rewards, etc.

Thirdly, *process-centric design*: bank logical architectures are often optimized around well-defined processes (open new account, extend credit, pay a bill, recover debt, etc.). Automation/digitization generally becomes turning these "customer journeys" into their digital/automated equivalent. But event/graph-based architectures

can help redefine (not just "digitize") these activities to no longer be left-to-right processes, in two regards:

- *Atomic, semantic-rich data events*: can be shared, rebundled and reused across the bank by smart rules engines in myriad different ways.
- *Interactivity*: event-based architectures can make the bank activity real-time interactive with the customer (or other third party) – responding to unfolding context in smart, efficient ways.

The problem with the "customer journey" orientation is threefold.

Firstly, it tends to optimize a process *within* its bounded silo (account opening process, make a complaint process, etc.) – which creates architectural duplication and division *between* the silos – undermining data and micro-service reuse across the bank as a whole.

Secondly, processes tend to run from start-to-finish. This means that customers (or the bank) are thrown into a process at the beginning – perhaps needing to repeat information already provided previously – and work through to the end, including performing activity that may not be needed.

Finally, the process-centric model can often optimize the customer "happy path" – the journey when everything works. Which means if things don't quite work – if there's a mistake, or missing bits of information, or there's an edge case, or a recovery is needed or there's dispute to manage – these all fall out to separate "unhappy paths" that are handled and optimized separately – adding cost to the bank and hassle for the customer.

An alternative event-oriented approach handles activity based on shared event histories – building on what's gone before (from across the

customer/bank relationship history), it triggers activity by exception and treats happy and unhappy paths as all within the same suite of event triggers.

Finally, *batch processing*: many/most banks' legacy core systems date from an era when real-time processing at scale wasn't practical. As a result, the core banking systems update in a batch process, typically overnight, rather than in real-time as transactions occur.

Of course, modern compute capabilities mean you wouldn't design a bank around batch processing today – and the new challengers build their services on real-time core platforms. But the legacy banks have remained on their historic batch-based systems. To cope they've developed complex workarounds, by giving customers apparently near real-time experiences in digital channels, on the one hand, and managing services that require real-time accounts (like FX) on a completely separate system, on the other. These workarounds do a fair job of papering over the cracks, but once again they limit the capacity to innovate services to become more relevant to customers' financial lives – for example, offering instant credit or creating flexible spending pots/wallets or context-specific spending rules.

As banks have sought to modernize their platforms, there's been any number of high-profile calamities focused on attempts to deliver core migrations or building greenfield architectures off to the side. An alternative path to deliver modern, flexible systems focuses on executing a sequenced, progressive monolith-to-microservices upgrade over time.[7] The goal is not to replace the core banking systems but rather to abstract services away from them and diminish them down to a legacy system of record – migrating to a modular architecture of abstracted, configurable and interoperable components, outlined below:

- *Disaggregate bank into reusable components organized into loosely coupled layers*: abstract services (products, customers, transactions,

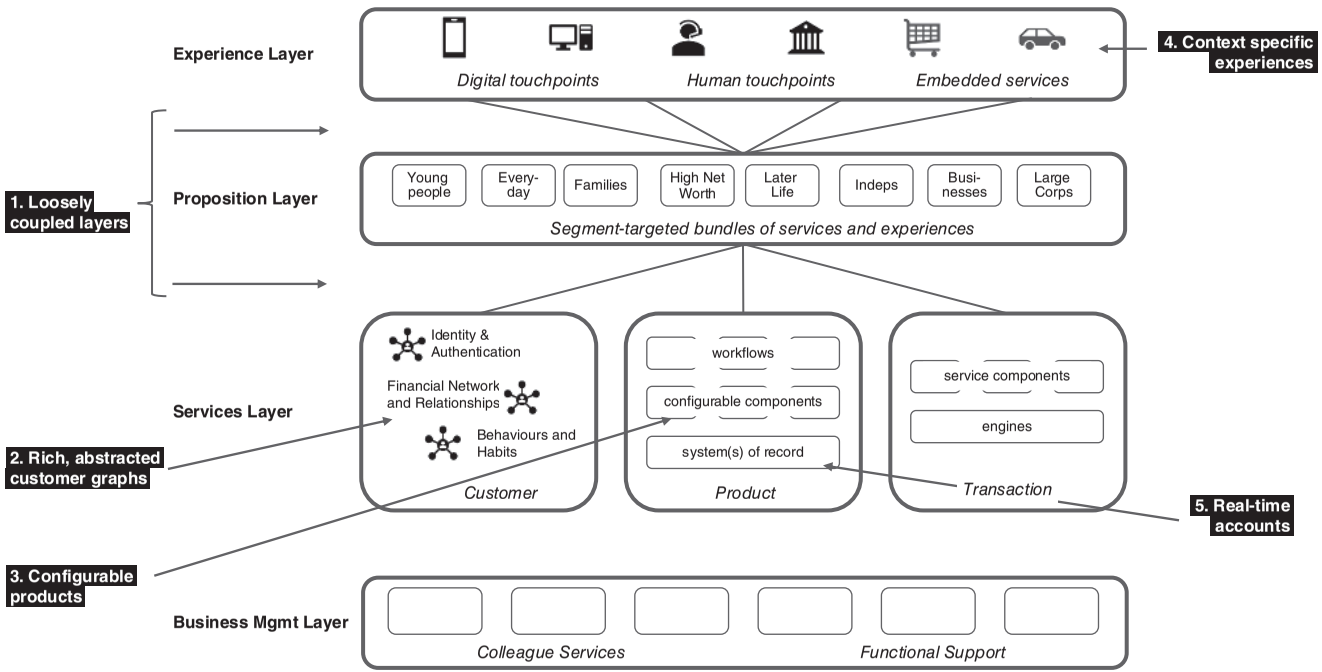
[7] See "Monoliths to Microservices" – Sam Newman, 2019.

experiences) away from the "core banking" system of record. Ensure each of these elements are made up of flexible/configurable components (reusing micro-services and sharing event data) and are interoperable with each other. Make "customer propositions" from combining and configuring reusable product, customer management and experience components.

- *Elevate customer relationships through rich, abstracted customer graphs*: massively enrich the customer management/data custodian services by abstracting all customer event data – to enable three customer graphs – (1) Customer ID/authorizations/authentications (2) Customer relationships and networks (3) Customer habits and behaviour – to transform the bank's ability to help customers manage their financial lives and personal data.
- *Sharpen relevance through context-specific experiences*: leverage modern flexible experience managers to personalize customer interactions – anticipating customer need and intent.
- *Unblock innovation through abstracted configurable products*: build a rich inventory of reusable product components above the system of record – to enable personalized/hybrid products (e.g., fungible credit lines, FIFO savings, relationship-wide rewards, to be configured and managed quickly and cheaply).
- *Underpin these by migrating to real-time processing*: migrate in a piecewise and systematic way to a real-time core – to remove the work around complexity of "pseudo real time" experiences being delivered on top of an overnight batch processing legacy core platform (Figure 1.13).

We will discuss these themes in more detail in Chapter 4, but in summary:

Figure 1.13


Experience Layer
Digital touchpoints
Human touchpoints
Embedded services
4. Context specific experiences
1. Loosely coupled layers
Proposition Layer
Young people
Every-day
Families
High Net Worth
Later Life
Indeps
Busi-nesses
Large Corps
Segment-targeted bundles of services and experiences
Services Layer
Identity & Authentication
Financial Network and Relationships
Behaviours and Habits
Customer
workflows
configurable components
system(s) of record
Product
service components
engines
Transaction
2. Rich, abstracted customer graphs
5. Real-time accounts
3. Configurable products
Business Mgmt Layer
Colleague Services
Functional Support

	Challenge with Today's Legacy Bank Architectures	Elements of the "Healthy Money" Rearchitecting

Disaggregate bank into reusable components organized into loosely coupled layers	• monolithic product specific systems hardwire product–customer–account relationships
	• as a result,
	  • customer data is siloed and static
	  • products are inflexible and difficult to innovate
	  • experiences are hardwired and difficult to join up across touchpoints
		abstracted services: configurable product and customer services built and operated in an abstracted layer above the systems of record
		abstracted experiences: configurable touchpoints, enabling universal experiences i.e., any service to any touchpoint
		propositions-as-configurations: digital product managers designing and managing propositions as bundles of services and experiences – reusing shared components

Elevate customer relationships through rich, abstracted customer graphs	• static, siloed customer data of unclear provenance and limited insight
	• as a result:
	  • trusted customer ID data is difficult to share and reuse
	  • customers' range of financial relationships aren't manageable
	  • customers' histories and habits are difficult to record and reuse as insights
		event-based ID graphs: customer ID's as graphs drawn from an accessible history of verification events
		configurable roles and relationships graphs: richly defined customer financial relationships and control rules for each customer
		accessible customer histories: rich customer histories of outcomes, behaviours and habits accessible to customer and bank

Unblock innovation through abstracted configurable products	• product-oriented core platforms limit scope for innovation and segment-of-one proposition tailoring	**abstract product components into reusable services, with common catalog:** create common library of configurable components; create products as bundles of configurable components

(continued)

(continued)

	Challenge with Today's Legacy Bank Architectures	Elements of the "Healthy Money" Rearchitecting
Sharpen relevance through context-specific experiences	• customer touchpoints relatively siloed – meaning customers cannot easily start journeys in one channel (e.g., research mortgages online) and complete on another (sign up to mortgage in branch) • touchpoints lack flexibility and intelligence to personalize customer interactions (cf. customers' BigTech experience)	**integrated workflows across touchpoints:** enable customers operate journeys across touchpoints, through abstracted workflows and event histories **flexibly rendered touchpoints:** enable touchpoints to personalize to anticipate customer intent and context, and reduce customer work

Underpin the above by migrating to real-time processing	• batch processing in the core compromises aspects of all the above, including:
	  • context-specific experiences
	  • instant product fulfillment
	  • interactive/context-contingent services
		transition to real-time core: migrate to real-time core overtime; typically through running a real-time core (for all new services) alongside batch core (for all legacy services) until legacy run off completes

Finally Leadership

Major technology transformations (e.g., platform migrations) have a poor track record in banks – with many/most high-profile ones ending in failures and organizational fallout.[8] Part of the reason is a uniquely difficult combination of three factors that make transformations in banks particularly difficult:

- *The installed customer base to manage*: unlike most industries, bank transformations critically involve "migrating" an installed customer

[8] "Get Core Banking Transformations Right" – McKinsey, February 2022.

base – unlike most product-oriented industries (FMCGs, manufacturing, retail, hospitality, etc.) ensuring this migration is robust and sustains complete integrity throughout the process is critical; and difficult.

- *The implicit contractual nature of continuity of service and trust*: the first point is exacerbated by the implicit contracts embodied in banks' products/services. A "bank account" is an open-ended contract with a customer to provide them with 24/7 money holding and payments services, forever. Unique product features offered in the past must be – apparently – honored, forever. And, resilient watertight continuity of service is not just a "valuable feature" – its central to the banks' basic value proposition and critical to it staying viable, staying solvent and staying in business.
- *The web of cross subsidies in the customer value and economic model*: and both the above are further exacerbated by the holistic nature of the business model i.e., the business model works through combining inter-related services that cross-subsidize each other and cross-support each other. For example, banks offer subsidized payments infrastructure to persuade customers to leave deposits with the bank, at low interest rates. Banks then use these (relatively) cheap retail deposits to fund high-margin lending, from which they make their profits. And then banks further use the customer inertia to cross sell wider product ranges. And finally, by providing universal banking, banks earn the right to bank the small number of affluent customers that maintain large balances. These customers' balances earn the margins that cover the costs of everyone else.

All this means customer and company value is a complex web of cross subsidies – across different services (payments, deposits, loans), across different time periods (upfront costs versus later benefits) and across different customer segments (affluent versus mass market) etc. It's the range of services and customers together that deliver the economic model that makes

banks so profitable – and changing specific parts can have big knock-on value effects – for the customer and/or the bank.

These realities, often seemingly reinforced by the demands of regulators, make transforming an incumbent bank quite difficult. Difficult but not impossible. For bank leadership, these challenges are real but should be seen as challenges to rise to, not excuses to hide behind.

The challenge of transforming the bank, therefore, ultimately becomes a leadership challenge. It's on the banks' top leadership to bring together the scale of the opportunity to better support customers' financial lives (the customer transformation) with the opportunity to migrate to a modern abstracted and configurable architecture (the architecture transformation). And obversely, it's a failure of leadership to let the customer transformation and the architecture transformation progress distinctly in different organizational silos – as both will be critically compromised as a result.

Central to these transformations is the shift to a more technology-centric mindset – viewing the industry as inherently deflationary. And to raise the organization's aspirations to perpetually seek to give customers more for less.

When customers found starting a new banking relationship painful, they used to display "loyalty" to their primary bank. This was, in truth, more the result of customer inertia than a deep sense of love for their adopted bank. Nevertheless, in that world, banks might have viewed customers as "supermarket shoppers" – "*I either do my shopping at Tescos or at Sainsburys, but not both*" (and I either do my banking at Lloyds or at Barclays, but not both).

But as customers have started adding in multiple different digital banking providers – Lloyds for my payroll, Starling for my kids accounts, Tide for my side hustle and Wise for my overseas travel – customers have become more promiscuous and open to changing their constellation of provider relationships overtime.

Suddenly, it's not like Sainsburys competing with Tescos for your weekly grocery shopping trip, it's more like Netflix competing with Prime for your nightly TV viewing attention. Customers have both services available to them sitting on the couch in front of the TV. At any given moment, they will use the one that feels most relevant and engaging to their needs *in that moment*.

It's this central sense that customers aren't "my customers or the other guys' customers" anymore. Increasingly, they don't "belong" to any one provider. They use multiple providers interchangeably and increasingly are most attentive *to* the providers who are most attentive and relevant *to them*.

Equally, with customers' attention divided amongst multiple providers, there's more growth in doing more with the customers we have some attention from today, than in chasing customers who pay us no attention at all. And so the game becomes more about deeply engaging them and being relevant to them.

And even "customer acquisition" becomes increasingly about engagement – as customers may initially engage with the provider for advice and ideas and only later start an account or take a credit line, etc. There's an analogy here to the "freemium" model in many internet services (like Linkedin, Spotify or Amazon) – where customer acquisition is a graduated process, driven by increasing engagement and customer commitment overtime.

The other feature of this "deflationary" world view is the need to constantly and continually up-the-game. This is competing in a world where market positions are constantly being eroded by improving technology and rising customer expectations; and players must constantly be seeking to renovate their existing features to provide customers with more for less, just to retain the franchise they have.

This mindset implies moving from a culture of *change management* based on making choices and managing tradeoffs; to a *change leadership*

culture, based on relentless improvement, resolving tensions and renovating customer franchises.

Change management is a world of "this-or-that" – either we grow revenues *or* we cut costs, either we tighten our belts to raise short-term profits *or* we invest for the long term, etc. Change leadership is about not accepting those tradeoffs – its finding ways to constantly deliver for customers and cut costs *at the same time*; and to deliver today by building capabilities that *also* enhance tomorrow.

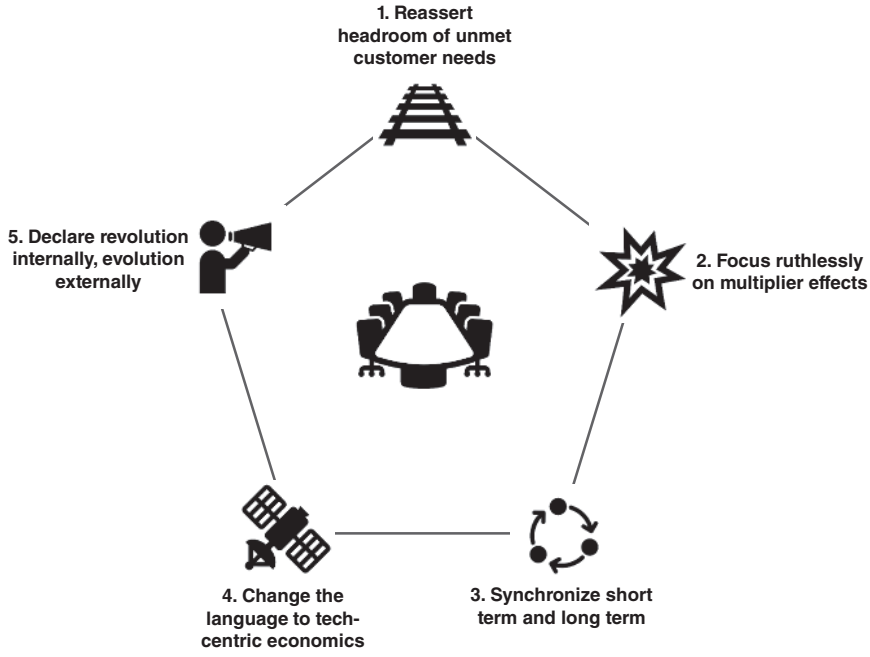
Central to the change leadership model is – again – a ruthless focus on future-oriented architecture. The reason the short term and long term are in conflict, almost always, is because the short-term solution undermines rather than accelerates the future state architecture. As we've argued, the bank is generally trying to migrate from siloed, monolithic and closed platforms to abstracted, configurable and interoperable services. As long as *every single* short-term improvement the bank makes is built to the future state architectural pattern – i.e., it builds all its new services/features as abstracted, configurable and interoperable components – then driving the short term will accelerate the long term, rather than undermine it.

But that means a central role of the Chief Executive and top management is to define and relentlessly police the architectural changes across the bank's initiatives. In this model, this focus on the "multiplier effects" of building for interoperability and configurability is central to making the transformation valuable over time (Figure 1.14).

We will return to these themes in Chapter 5, but in summary:

- *Reassert headroom of unmet customer needs*: constantly redefine and refocus the organization on the massive headroom of unmet customer needs – of ways we can be more relevant to customers' financial lives and a better partner to them sustaining healthy financial lives.

Figure 1.14



- *Focus ruthlessly on multiplier effects*: personally focus on the progress of building the critical capabilities, the measures-of-insight and the crucial architectural patterns that create "multiplier effects" – i.e., things that have knock-on positive reusability and scalability across the transformation.
- *Synchronize short-term and long-term performance*: ensure all short term performance initiatives adopt and accelerate the transition to the future state patterns; ensure that non-performance related investments (motivated by regulatory compliance or other) also build to future state patterns and reinforce short term performance opportunities.

- *Change the language to reflect tech-centric economics*: co-opt five critical ways-of-being into the organization's internal language and culture to support the change in shared mindset:
  - *Customer empathy*: understanding customers' financial lives; seeing our customers' financial indiscipline on a human-to-human basis (not customer versus supplier basis).
  - *Customer engagement*: measuring, targeting and monitoring the level of customer engagement across the franchise – defined as recency, frequency and breadth of engagements.
  - *Reuse*: creating a culture that promotes and admires reuse – willingness and instinct to reuse others' services/capabilities from across the bank.
  - *Change leadership*: unwillingness to make tradeoffs between growth versus productivity, between short term and long term, and between the parts and the whole; insistence on "and" solutions – that deliver both, all the time.
  - *Winning together*: focusing on shared success, on rewarding those who work together, who deliver in service of others, who deliver through leveraging the work of others.
- *Declare revolution internally, evolution externally*: – Avoid temptation to declare revolution externally (to assure customers/shareholders everything will be better quickly) and evolution internally (to reassure colleagues that they are safe and valued continuing to do what they've always done).

Instead – do the reverse: declare evolution externally – explain to customers how we are building on our past successes to help them more, and in better ways, in the future. But, declare revolution internally – explain to colleagues how we need to embrace the opportunity of radical and fast-reaching change.

1.5 PUTTING IT ALL TOGETHER

So, to summarize where we've gotten to:

The digital transformation of the banking industry is changing much more than just the technology used; it's changing the role the industry plays in customers' financial lives.

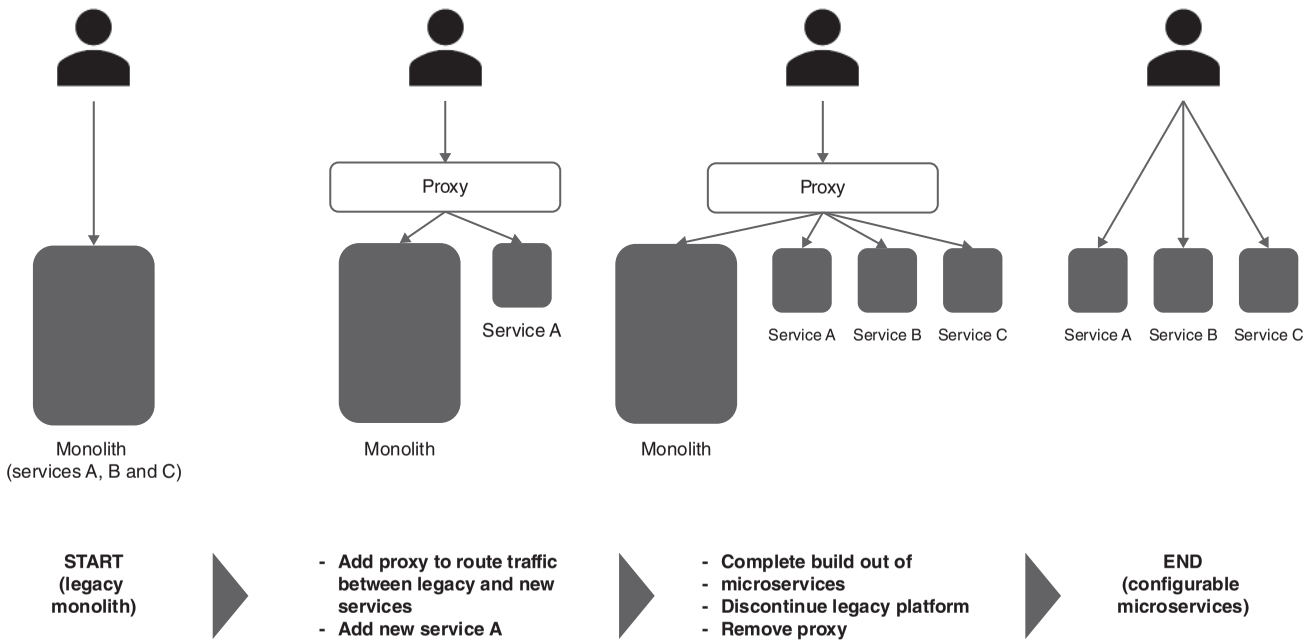
Whilst the incumbents respond to this relatively superficially, they will continue to experience only modest value growth and performance improvement. However, platform players, embedded finance players and BigTech are enjoying rapid and continued growth as they engage customers in ways that are more fundamentally relevant and valuable.

A small group of incumbents (the "2030 probable winners") are responding in kind – reimagining how they can refocus their customer offer around customers' actual financial lives, redesigning their architecture to support these services flexibly, and resetting their leadership standards to reflect the relentless orientation towards customer engagement and consistently giving more for less.

Delivering this change is best done by progressively renovating the core bank. Attempts to re-platform the entire bank, or to build a brand new bank off to the side, have proved high risk/low success for all sorts of reasons. But, for one thing, these massive transformation exercises are remarkably un-customer-focused ways to improve your focus on customers! Rather, they turn the bank inwards – trying to deliver internal change and squabbling over investment allocations and change paths. In so doing, they take the focus *away* from serving customers and their needs.

Better, instead, to follow a well-sequenced progressive transformation of customer, architecture and leadership models *together* – providing exciting new services to existing core customers, whilst delivering these through abstracted, configurable micro-services and resetting performance standards as you go (Figure 1.15).

Figure 1.15


Monolith
(services A, B and C)
Proxy
Service A
Monolith
Proxy
Service A
Service B
Service C
Monolith
Service A
Service B
Service C
START
(legacy
monolith)
- Add proxy to route traffic between legacy and new services
- Add new service A
- Complete build out of
- microservices
- Discontinue legacy platform
- Remove proxy
END
(configurable
microservices)

The Strangler Fig Pattern – Monolith-to-Microservices Migration[9]

Inspired by nature, the "Strangler Fig Pattern" migration pattern, is widely used by architects looking to gradually implement a monolith-to-microservice migration in a controlled way through adding new services one at a time, and directing traffic to them through a proxy layer, until the legacy monolithic services have been completely replaced by configurable micro-services.

The "Healthy Money Revolution" can leverage this migration pattern to build out new services – adding new value to customers – in a sequenced way, that results in an architectural redesign overtime.

Individual banks can sequence the change in ways that are relevant to them – depending on circumstances. However, the general idea is to build new capabilities to add new value to customers as abstracted micro-services, managed through a proxy layer as in the "Strangler Fig Pattern." As more of these services get built and adopted, the bank moves to the new architecture through a step-wise process of progressive modernization.

Whilst there are a myriad of different sequence paths banks could adopt, we will discuss three in more detail in Section 5.8 later. Each of these is a sequence change path (of customer, architecture and leadership together) – but each starts from a different place:

	Idea	Potential Customer Targets
Customer financial management	Focus on enabling critical customers to step change how they manage their finances and financial relationships; utilize their requirements to build out rich, abstracted customer graphs and event histories	Families, gig workers, communities

(continued)

[9] See "Monoliths to Microservices" – Sam Newman, 2019.

(continued)

	Idea	Potential Customer Targets
Killer new product	Focus on building out killer new services to attack fast-growing/underserved segments; utilize their requirements for instant, configurable, open and/or data-rich services to springboard path to new architecture (examples: instant, fungible credit, FIFO savings, embedded lending, etc.)	Digital natives, young affluents, start ups
Platform upgrade	Leverage the need to upgrade core platforms (due to post merger integration, end of life, new regulatory requirements) – to build new Healthy Money services on new architecture	All

Before we can go through these in more detail – we want to discuss the themes that underpin the transformations of the customer, architecture and leadership components and then return to provide stylized sequences for each of these in Section 5.8.

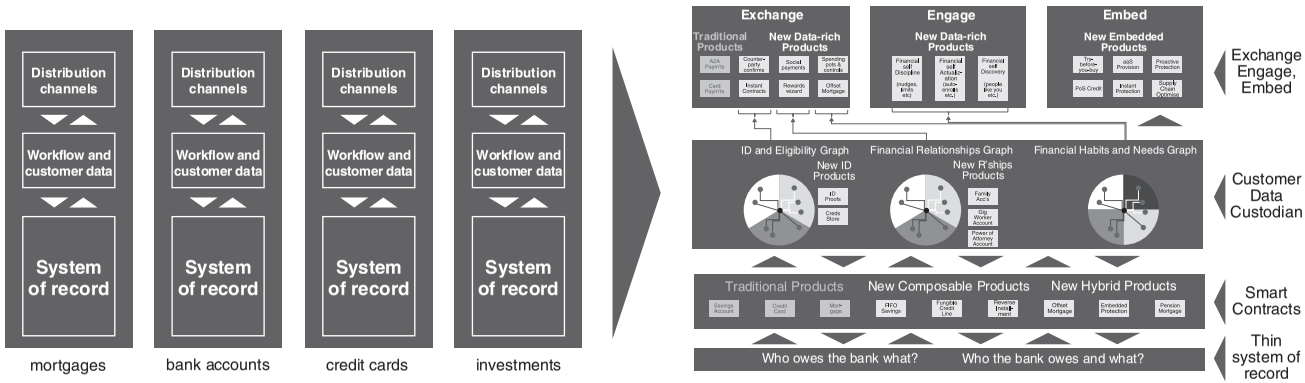
As we will discuss further in that section, all the paths through are sequenced, customer-focused paths through the transition – renovating the bank architecturally:

- **From:** A legacy, incumbent bank dominated by rigid, account-based systems of record, workflows with captive, static customer data and optimized for bank-centric customer journeys.
- **To:** A "Healthy Money" custodian creating configurable products as smart contracts, driven by rich, abstracted customer graphs and event histories, interacting with customers wherever they choose (Figure 1.16).

Figure 1.16

From: A legacy incumbent bank dominated by rigid, account-based systems of record, workflows with captive, static customer data and optimized for bank-centric customer journeys

To: A "Healthy Money" custodian creating configurable products as smart contracts, driven by rich abstracted customer graphs and event histories, interacting with customers wherever they choose



1.6 APPENDIX: ARE YOU A "2030 PROBABLE WINNER"?

So, as the structural transformation of the industry continues, value growth will continue to migrate to customer engagement-oriented digital players. Some of these will be incumbent banks, but the lion share of the value growth will be enjoyed by non-incumbents – digital disrupters (like Revolut and NuBank), platforms (like Adyen and Stripe), embedded finance players (like Shopify and Uber Money) and BigTech (like Apple and Amazon).

For the incumbents, most will struggle to keep pace with industry value growth. Inertia will keep their balance sheets in place, but customer engagement will fall behind competitors – limiting their relevance to existing customers and their appeal to new ones. In some cases, they will be the victims of consolidation over the next time period, swept up by more engagement-oriented competitors. In others, they will continue just with, increasingly, utility-level valuations – as the reality is they have limited growth prospects and an increasingly overwhelming investment bill just to stay compliant and resilient. Ultimately, the top teams of these players will hand their institutions to the next leadership generation weaker than the businesses they inherited – having accepted they weren't able to navigate the digital transformation of the sector as winners.

But there will be winners in this – incumbents who remake themselves to be customer engagement-oriented, and who are able to enjoy out-sized value growth as a result. Whilst it's not possible to predict with any certainty who will and will not be a "2030 winner," it is perhaps possible to

distinguish the "probable 2030 winners" from "the rest" in their focus and activity today.

Ten questions that distinguish the "2030 probable winners" from the rest:

				2030 Probable Winners
Leadership	**1.** Does the bank share a common ambition to drive digital customer engagement?	No credible internal measure/understanding of digital customer engagement	… vs. …	Regular tracking of digital customer engagement, with shared ambition to grow and agenda to deliver
	2. Does the top team share common views of the un(der)-met customer needs its looking to address?	Growth priorities defined as upgrades to segment bundles (e.g., affluent) and/or customer experience	… vs. …	Growth priorities defined as specific brand new services to introduce to improve specific customers' financial lives
	3. Does the top team actively police a common view of the target architecture, and ensure investment programs deliver to it?	No shared view of future state architecture (outside CIO function); architecture policing left to technology	… vs. …	Shared view of future state architecture and transitions states to achieve; top team ensures all investments deliver to future state
	4. Does the bank have active approaches to encourage working together as "One Bank"?	No clear incentives (formal or informal) to encourage working together across silos	… vs. …	Formal and informal incentives to share and reuse capabilities across the bank, and embed common patterns

(continued)

(continued)

				2030 Probable Winners
Customer	**5.** Is there a robust agenda of innovations to improve financial lives of core customers?	Innovation teams focus off to the side – building new service lines to target new customers, often with separate branding	… vs. …	Innovation focused on deepening engagement with core customers; by adding new services to better support their financial lives
	6. Is there a robust approach to integrating with partners to support core customers' wider financial needs?	Little use of partners; clunky/adhoc capabilities to integrate partner capabilities into bank journeys, and vice versa	… vs. …	Well-practiced range of patterns to integrate partner capabilities seamlessly into bank journeys, and vice versa
	7. Is there a distinctive approach to building sharp customer empathy across the bank?	Ad hoc research capabilities – like attitudinal/behavioural surveys – often the focus of marketing teams only	… vs. …	Systematic ethnographic and immersion practices, to ensure all bank leaders deeply relate to sharp realities of customers' financial lives
	8. Is there a credible path to rich, abstracted customer IDs/graphs powering customer management, service provision and insight?	Critical customer data remains siloed in product specific systems; customer data is static and limited value	… vs. …	Rich, abstracted and integrated customer data services; rich ID and attribute provenance data; rich data on financial relationships, behaviours/habits

				2030 Probable Winners
Architecture	**9.** Is there a credible path to an abstract, configurable product layer/ catalog enabling simple product unbundling/ rebundling?	Core platforms hardwire product–account–customer relationships; constraining ability to unbundle and configure new services	… vs. …	Product abstraction layer, and universal component catalog enables easily personalizable/ configurable new services
	10. Is there a credible path to joined up personalized customer experiences across touchpoints?	Siloed and passive customer touchpoints constrain ability to provide cross-touchpoint/ personalized experiences	… vs. …	Customer journeys and workflows orchestrated across touchpoints; touchpoints personalized, anticipating customer intent