



POLICY FRAMEWORK ON THE REGULATION, LICENSING AND SUPERVISION OF DIGITAL BANKS



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ACKNOWLEDGMENTS

This policy framework was developed by AFI members through a fully member-driven process in accordance with AFI's mandate as an independent, member-owned institution. This product provides policy guidance based on implementation across the AFI network and financial inclusion impact. AFI members have full ownership of this report, which also serves as a public good for the global financial inclusion community.

INTRODUCTION

With the explosion of a wide range of new players, services and business models driven by technological innovations, a new and specific type of digital financial services (DFS) provider has emerged: the digital bank (DB).

Offering a more complete set of services than other FinTech firms, DBs replicate to a large degree the role played by traditional banks in the economy, providing a wide range of banking products and services, but relying on digital distribution channels. DBs present viable options providing enhanced and targeted products and services to more consumer segments compared with other types of DFS providers and at a lower cost base than traditional banks. For regulators, digital banks have the potential to enhance efforts at deepening financial inclusion and competition in financial markets, especially in emerging economies.

While offering new opportunities, digital banks also come with regulatory implications. Regulators need to, therefore, find the right balance enabling this innovation while safeguarding market stability and consumer protections. The AFI network is experiencing a growing interest in digital banks - while some members have defined or are in the process of defining regulatory frameworks for the industry, others are regulating the emerging industry within existing traditional frameworks, while others have yet to embrace the concept to enable the industry. This prompted the DFS Working Group to develop this policy framework on the licensing, supervision, and regulation of digital/virtual banks. This framework provides guidance to regulators and policymakers of the AFI network and beyond contemplating strategies regarding digital banks, with a view of promoting financial inclusion. It provides insights in determining a relevant regulatory approach, implementing specific licensing regimes, and adapting relevant regulatory and supervisory benchmarks for the digital bank industry in their jurisdictions, as well as market conduct and consumer protection issues.

As digital banks are a recent and evolving development, this framework will evolve over time, as regulators gain valuable experience in dealing with this emerging form of financial institution. This policy framework is the result of in-depth secondary research and extensive consultation with AFI member countries and regulators in other jurisdictions, and other relevant analysis of developments in financial inclusion and DFS.

EXECUTIVE SUMMARY

Financial institutions are increasingly using virtual channels for the delivery of their services and products. Within this trend, digital banks are completely abandoning branch networks to provide customers with a range of services equivalent to that of their traditional peers.

The lower cost base and wider geographical reach make digital banks significantly suitable to deliver modern financial services to the underserved and unserved. These features should be considered by regulators when developing policies regarding digital banks, in the context of promoting financial inclusion.

The industry is evolving, and digital banks are adopting different business models, with characteristics that set them apart from traditional banks and other specialized digital financial providers. While the operational model of digital banks provides opportunities to deepen financial inclusion, it also presents some inherent regulatory concerns.

The regulatory landscape is also evolving to adequately address the specificities of the digital bank industry.

The approaches range from regulating digital banks under the general banking regulatory framework to the development of a specific set of regulations, including a licensing regime. The regulator must consider the following elements in determining an approach to regulating digitals within a jurisdiction. These cover, the regulators' policy objectives for the development of digital banks, maturity of the financial market, presence of non-financial enablers, and suitability of existing regulatory frameworks. All jurisdictions that have developed a specific digital banking licensing framework mention financial inclusion as a driver behind the decision.

Important consideration should be given to any regulatory divergence between digital and traditional banks. Some jurisdictions resort to a phased licensing regime approach to limit any regulatory variance to a specific period. In any case, any forbearance or restrictions must be risk-based or closely linked to policy objectives. Imposing restrictions or limits on new

digital banks may also be useful to allow supervisors to strengthen their capabilities to monitor digital banks.

In choosing a specific licensing regime, regulators must consider the following requirements:

- > The need to demand that new digital banks model business plans towards financial inclusion goals;
- > Have management and board members with strong technological and financial skills;
- > clearly define operational and IT risk management strategies, especially regarding outsourced services; and
- > Provide an exit plan that minimizes harm to customers should the new digital bank fail.

Another area of concern is with market conduct and consumer protection. An example is the ownership structure of digital banks which allows for Big Tech and other large non-financial companies to be controlling shareholders. Though this is useful as they bring technical expertise, a large pool of potential customers and financial strength, they pose market conduct and consumer protection challenges. Consequently, there should be a clear demarcation between the non-financial activities of these shareholders and those of the digital banks to avoid uncompetitive practices, data privacy weaknesses, and approaches to market share growth and the deployment of new products unsuitable for financial institutions.

Likewise, cybersecurity, data protection and privacy are inherent risks in the digital delivery of financial services, especially in markets where some customers may have inadequate digital financial literacy for safe digital financial engagement. Regulators should, therefore, consider encouraging digital banks to integrate digital financial literacy programs into their services.

Customer complaint handling, redress and the attention to complex situations are also highly relevant topics for digital banks. Regulators should recognize that a limited physical presence may be necessary for digital banks in properly being able to serve vulnerable customers when facing problems or unusual circumstances.

Finally, digital banks pose significant challenges to supervisors. Their tools and processes may require adaptations to reflect the complex web of players involved in a digital bank operation. This may involve considering the expansion of the supervisor's oversight remit to include providers of essential services such as telecommunications and cloud computing, either

directly or in cooperation with other authorities. Also, supervisors may add to their arsenal of technological solutions to enhance their data handling capacities, to use APIs to gather granular data from digital banks, to monitor the social media trends of digital banks and evaluate their artificial intelligence tools, among others. These supervisory technology (SupTech) tools are probably easier to implement first in digital banks, and later extended to the remaining supervised institutions.

CHAPTER 1: KEY CONCEPTS

There is an emergence of financial institutions whose business model and value proposition address the key pain points of traditional banks, such as the inefficiency and cost of branch networks, legacy oriented products, attracting more digital-savvy customers those of FinTech firms looking to transcend single product models, and more innovative access to and use of financial services.

This ‘digital bank,’- in reference to its unique business model of delivering financial services primarily through digital channels, is often used interchangeably with the terms ‘internet-only,’ ‘virtual’ and ‘challenger’ banks. However, a related term - neobanks, has witnessed divergent references within the industry. While some players use it interchangeably with digital banks, others note the difference based on licensing (Jenik, 2020), while another school of thought defines the difference based on the relationship to a regulated banking sector player - digital banks being an online or ‘digital-only’

subsidiary of a regulated player (permitting some level of physical interaction) while neobanks are solely independent (but can partner with traditional banks) online-only entities (PwC, 2021). As with any new phenomenon, labels are still in a state of flux (Ehrentraud, 2020).

At the same time, the term ‘digital bank’ has been used, confusingly, for services provided by traditional banks through digital channels - digital banking or e-banking (AFI, 2016) as well as for firms providing a limited set of financial services, such as e-money issuers and other digital financial services providers.

The defining characteristic distinguishing a digital bank from a traditional commercial bank is the delivery of its financial services primarily through virtual channels. Most jurisdictions that define digital banks allow for a limited physical presence, beyond their main place of business, while in others, the regulation completely bars digital banks from having physical points of business with customers.

From a conceptual perspective, this policy framework defines a digital bank (DB) as a regulated financial institution that delivers a wide range of banking products and services, mostly through virtual means.

TABLE 1: TERMS AND CHARACTERIZATION OF DIGITAL BANKS AMONG SELECTED REGULATORS

AUTHORITY	TERM	CHANNELS
BANK NEGARA MALAYSIA	Digital banks	Wholly or almost wholly virtual
BANGKO SENTRAL NG PILIPINAS - PHILIPPINES	Digital banks	No physical branches ¹
STATE BANK OF PAKISTAN	Digital banks	Mostly virtual
MONETARY AUTHORITY OF SINGAPORE	Digital banks	One physical place of business only
HONG KONG MONETARY AUTHORITY	Virtual banks	Primarily virtual
FINANCIAL SERVICES COMMISSION - SOUTH KOREA	Internet-only bank	Mostly virtual
FINANCIAL SUPERVISORY COMMISSION - TAIWAN	Internet-only bank	Mostly virtual
EUROPEAN BANKING AUTHORITY	Digital-only institution	Mostly virtual but no physical branches
FINANCIAL SERVICES AUTHORITY - INDONESIA	Digital banks	Mainly through electronic channels without a physical office other than the head office or using a limited physical office

¹ Nevertheless, the regulation allows the provision of services through cash agents and other qualified service providers.

Therefore, the definition excludes financial services offered by traditional banks through digital channels in addition to their branch networks (e-banking). In addition, it excludes entities that do not intermediate client funds (non-bank providers) and/or offer limited financial services.²

The emphasis on ‘mostly through virtual means’ offers regulators and providers some degree of flexibility. For example, a DB may need to provide customers with a physical point of contact when dealing with complex matters, such as resolving cases of fraud, complaints or inheritances. Also, this definition allows for the use of third parties to provide certain services on behalf of a DB: cash-in/cash-out (CICO), onboarding, etc.

In the context of this document, the term virtual means ‘equivalent to digital channels,’ and “refers to the internet, mobile phones (both smartphones and digital feature phones), ATMs, POS terminals, NFC-enabled devices, chips, electronically enabled cards, biometric devices, tablets, phablets and any other digital system.” (AFI 2016)

DIGITAL BANKS AS ESSENTIAL ENABLERS

The entry of DBs into the financial landscape has been made possible thanks to a combination of technological innovations and developments both within and outside the financial sector permitting the secure and uninterrupted provision of financial services through digital channels at a low cost.

To thrive and be successful, DBs need a suitable environment, with well-defined legal and regulatory provisions adapted to provide financial services through digital channels. In parallel, full and reliable access to certain components of financial and telecommunications infrastructure is essential for DBs to be a viable proposition. Although these desirable features are not exclusive to DBs, traditional banks may have greater resilience to operate in their absence, given their physical footprint and experience operating outside the digital realm.

By far, the most important enabler of DBs has been the widespread adoption of mobile phones with powerful data processing capabilities and access to data networks. Most DBs are initially built around their mobile phone apps, with some even lacking a transactional website.

Another crucial factor for a successful DB landscape is a modern payment system that offers participants a way to process their customers’ payment transactions safely,

quickly and cheaply. In particular, the advent of rapid payment schemes, offering instantaneous and usually free transfers between bank accounts through the central bank, has allowed DBs to effectively compete with traditional banks.

Although not a prerequisite, the development of national ID schemes allowing for quick and low-cost verifications of identity instruments have enhanced the ability of DBs to onboard new (and usually unserved) customers without relying on physical branches, while at the same time complying with AML/CFT regulations.

DBs also thrive if they have the flexibility to quickly add new features, products and services, as well as scaling them up, according to their evolving needs. The use of modular IT architecture and access to third party providers, paying for only the services effectively used, is essential to offering affordable products and services.

To promote financial inclusion, the communications infrastructure of DBs must ensure uninterrupted access to online services while the devices and data connectivity to access their services have to be affordable for the financially excluded. In addition, digital crimes must be clearly defined and effectively enforced to safeguard consumer protection.

Finally, DBs thrive where there is a wide choice of providers of essential services, such as cloud computing. This may prove difficult if the jurisdiction has data localization rules. Similarly, the availability of professionals in the jurisdiction with the skillset required by DBs may be a condition for their success.

² Since the definition is conceptual, regulators/financial supervisors may need to adapt it to reflect their jurisdiction's uses and legal systems.

CHAPTER 2: BUSINESS MODELS OF DIGITAL BANKS

Three main dimensions impact how a DB operates and obtains profits:

- 1) ownership and a firm's structure;
- 2) range of products and services;
- 3) and use of external providers.

The first defines the scope of the other two. In some cases, regulators limit the range of available options while others explicitly promote different approaches to encourage innovation or other policy goals.

2.1 OWNERSHIP AND A FIRM'S STRUCTURE

The ownership and corporate architecture of DBs is driven either by market forces or informed by licensing requirements (discussed in chapter 4). This usually reflects the unique importance of an integrated technology and data ecosystem for the sustainability of the business models. Therefore, it is common to have allied non-financial digital players in e-commerce, Big Tech and MNOs as the sole or significant shareholders of DBs.

Digital banks are a unique combination of a technology and financial firm. This makes them attractive to large technology companies who become key shareholders of new DBs. The entity may then quickly bring on their parent firm's financially underserved customers into the regulated financial system, for example, by integrating alternative data into credit scoring.

Also, DBs backed by large technology firms or MNOs may more easily overcome a natural reluctance by individuals and companies to trust their funds to new and unknown banks, especially for their main banking accounts. This also applies to the unserved, who may be enticed to start their financial activities with a brand they already know and trust.

On the other hand, there may be a clash between the prevalent business approach among large technology firms and a prudent approach compatible with financial stability. Therefore, it is essential that directors and high-level managers have the proper qualifications, understanding, and experience in both technological and financial services.

A DB may originate as an independent FinTech firm with no linkage to an incumbent entity or bank. In most cases, it develops a relevant financial product or service and secures a banking license to deploy and expand its portfolio of products. These are usually referred to as 'challenger retail digital banks.'

TABLE 2: EXAMPLES OF DIGITAL BANKS OWNERSHIP MODELS³

INDEPENDENT SHAREHOLDERS	Nubank (Brazil)
INDEPENDENT SHAREHOLDERS EVOLVING FROM AN UNLICENSED FINTECH FIRM	Kuda Bank (Nigeria)
MNO-OWNED	STC Pay (Saudi Arabia)
BIG TECH OWNED	WeBank (China)
FINTECH-MNO JV	Grab-Singtel (Singapore)
FINTECH-BANK JV	Mox Bank (Hong Kong)
BIG TECH-BANK JV	Fusion Bank (Hong Kong)
TRADITIONAL BANK BUYING A CONTROLLING STAKE ON AN EXISTING DB	C6 Bank (Brazil)
TRADITIONAL BANK SUBSIDIARY	Union Digital Bank (The Philippines)

3 Includes recently licensed DBs still not in operation.

On the other hand, traditional banks may decide to set up a DB as a subsidiary, either to simplify the digitalization of its services or to target new customers (e.g., the young) with a fresh and distinct brand.

It must be noted that these approaches are just points in a continuum with multiple combinations possible, most notably a traditional bank buying a large stake in an existing independent DB to enter a new market. This analysis excludes shareholders, such as private equity funds and venture investors, without an active role in the DB's operation.

Diversity in the ownership structure usually defines the DB's business goals. On one extreme, a subsidiary of an incumbent bank may be expected to focus on playing a role supporting the parent bank's objectives. For example, incumbent banks using DBs to enter foreign markets with lower capital outlays, sometimes under a different brand, therefore mitigating any reputational impact if the expansion is problematic or unsuccessful. In these cases, the new DB may not have a pressing need to reach profitability nor is its management encouraged to develop products or services competing with those of its parent.

In 2008, Bank of Tokyo-Mitsubishi UFJ, a traditional bank in Japan, and KDDI, an MNO, launched a joint DB, Jibun Bank. The stated purpose was to reach population segments that had proved reluctant to become customers of the parent bank, specifically younger generations. Jibun Bank developed new products and services, overcoming the limitations of the legacy systems of its parent bank, tightly integrated with the mobile services of its parent MNO. Branding differentiation also provided Bank of Tokyo-Mitsubishi UFJ assurance that it would not cannibalize its existing customer base and mitigate reputational risks from the DB's then unproven mobile-centric business model and non-traditional services⁴.

A Big Tech or MNO-owned DB may have a business model oriented to building on the reach of its parent's non-financial activities, such as lending to their parent's customers, in the case of online retailers.

Independently owned DBs usually adapt a business model designed to compete with incumbent banks, attracting dissatisfied clients offering better a customer experience as well as novel and cheaper products and services.

Some countries, such as Singapore and South Korea, have explicitly restricted controlling stakes of new DBs to technological and communications firms. South

Korea, however, modified the general banking law lifting the ceiling for information and communications firms holding shares in DBs from 4 percent to 34 percent.

MONETARY AUTHORITY OF SINGAPORE

Eligibility Criteria and Requirements for Digital Banks

"At least one entity in the applicant group has a track record of three or more years in operating an existing business in the technology or e-commerce field." (MAS 2018a)

Digital Full Bank Framework

"The applicant or its parent group must have a track record in operating an existing business, in their respective technology or e-commerce fields (MAS will not consider applicants with no existing businesses)." (MAS 2018b)



Similarly, the State Bank of Pakistan is proposing to limit controlling stakes of DBs to financial institutions or to "telecommunication, e-commerce, ICT, or other pertinent digital or innovative financial and non-financial domains."

2.2 RANGE OF PRODUCTS AND SERVICES

Closely linked to the ownership structure is the type or portfolio of products and services and the framework within which they are offered to consumers (that is, either through the DB or third-party partners). The products range from basic ones, usually deposit accounts and credit cards, to corporate and retail banking services, including wealth management, trade finance, and others. Within this range, DBs may offer specific products for SMEs, foreign exchange services and other non-banking financial services such as insurance or brokerage. Some DBs may even provide their customers with non-financial services such as travel packages, budgeting, accounting, as well as the trading and storage of crypto assets, directly if the regulatory framework allows it, or through partnerships.

Access to customers' data coupled with innovations in big data and artificial intelligence, enables DBs to offer customized products such as basic financial planning tools, spending categorization, and automatic savings

4 The Asian Banker, 2016. "Jibun Bank thrives without a branch network." <https://www.theasianbanker.com/updates-and-articles/jibun-bank,-japan:-achieving-profitability-and-growth-without-a-branch-network/>

plans based on income and spending patterns. These services provide a unique marketing opportunity for DBs focused on younger or underserved customers.

REVOLT, UK

Revolut is an illustrative example of a complex DB. With headquarters in the United Kingdom, it holds an EU-wide ‘challenger bank’ license issued in Lithuania, with operations in the US, Australia, Japan, Singapore and Bonaire. Revolut has applied for further banking of FinTech licenses in Brazil, Canada, Hong Kong, New Zealand and the United Arab Emirates, as well for full banking licenses in the UK and the US. The following list of products and services varies by jurisdiction and in some cases, the provider is a separate firm, that exclusively serves DB customers.

Retail customers services

Deposit accounts, Personal loans, Stock market trading, Fractional share trading, Insurance, Smart insurance contracts, Commodities investing, Crypto asset trading, Foreign exchange, Budgeting/spending reports, Automatic savings, Bill splitting, Shopping integration

Business customer services

Multi-currency accounts, Department/Staff separate accounts, Third-party app integration via APIs: accounting, invoicing, process automation



2.3 OUTSOURCING AND PARTNERSHIPS

With the absence of physical branch networks and increasing FinTech solutions, some DBs opt not to own the operational assets needed to run a bank, similar to business outsourcing within traditional banks. However, DBs tend to outsource significant, if not all, key operations such as computing hardware, applications, onboarding and KYC compliance processes, and specific financial services such as foreign exchange. In most cases, DBs depend on arrangements with third parties to provide CICO services to their customers.

These arrangements may also take place within a financial group. A traditional bank may elect to provide a wholly owned DB subsidiary all of the services it requires. This arrangement also covers services provided by specialized firms within a conglomerate, such as cloud computing, artificial intelligence, etc.

Again, the options available for DBs sit on a continuum, see figure 1.

Implicit in this graphic is the perspective of which entity is providing the outsourced services. The operational risk profile of a DB reliant on its parent bank for its services will merit a different approach to that of an independent DB that has contracted out its operations to companies outside the financial authority’s remit.

TABLE 3: DIGITAL BANKS PRODUCTS AND SERVICES

COMPLEXITY	FINANCIAL	NON-FINANCIAL, NON-TRADITIONAL OR NON-REGULATED ACTIVITIES
LOW	Basic financial intermediation: Retail deposit and credit cards	<ul style="list-style-type: none"> > Budgeting > Spending categorization > Basic financial planning
MEDIUM	<ul style="list-style-type: none"> > Retail and SMEs financial intermediation > Foreign exchange > Insurance > Brokerage 	<ul style="list-style-type: none"> > Travel services > Integration with online retailers
HIGH	Full corporate and retail banking services: Intermediation, wealth management, trade finance	<ul style="list-style-type: none"> > Crowdfunding > Crypto asset trading and wallets > Exotic products (binary options, contracts for differences, etc.)

There is a sound business case for DBs to opt for a mix of a ‘distributed/relegated bank’ (BCBS, 2018, page 33). Building a financial institution with fully developed and tested solutions offered in the market shortens the period to begin operations. A platform model also tends to be cost-effective as competition is intense among vendors offering products such as Banking as a Platform (BaaP), compliance tools (RegTech), onboarding and KYC. Likewise, outsourcing certain non-core financial services to specialized FinTech firms, such as payments or foreign exchange, frees up capital and staff. For customers, transactions flow seamlessly through APIs and, where available, open finance arrangements.

A special case is the **Bank as Service (BaaS) business model**. In this case, a licensed DB integrates their banking services directly into the products of other non-bank businesses including other DFS providers, as well as traditional banks. DBs using the BaaS model do not interact directly with customers, thus limiting their appeal as promoters of financial inclusion. However, BaaS providers may help to develop a more stable FinTech ecosystem under the regulatory perimeter.

With regards to financial inclusion, both BaaS and BaaP are possible facilitators. A DB with a BaaP model can rapidly expand its range of services with lower developments and running costs. BaaP allows a DB to tailor its product portfolio to the changing needs of its customers.

Licensed BaaS, on the other hand, although not interacting directly with customers, may provide essential services to specialized DFS providers, bringing bank-specific products to underserved clients.

TYME BANK, SOUTH AFRICA

Tyme Bank, a DB⁵ licensed by South Africa’s Prudential Authority, relies on a “cloud-based tech stack that is ultra-scalable through a combination of leading SaaS providers, proprietary third-party software and custom development leveraging open source” (TymeGlobal, 2021) for its business. It combines the outsourcing in the cloud of its core banking operation with partnerships with two supermarket chains.

New customers can open accounts at kiosks within the retailers’ stores and immediately get a debit card as well as CICO services at the stores’ tills.



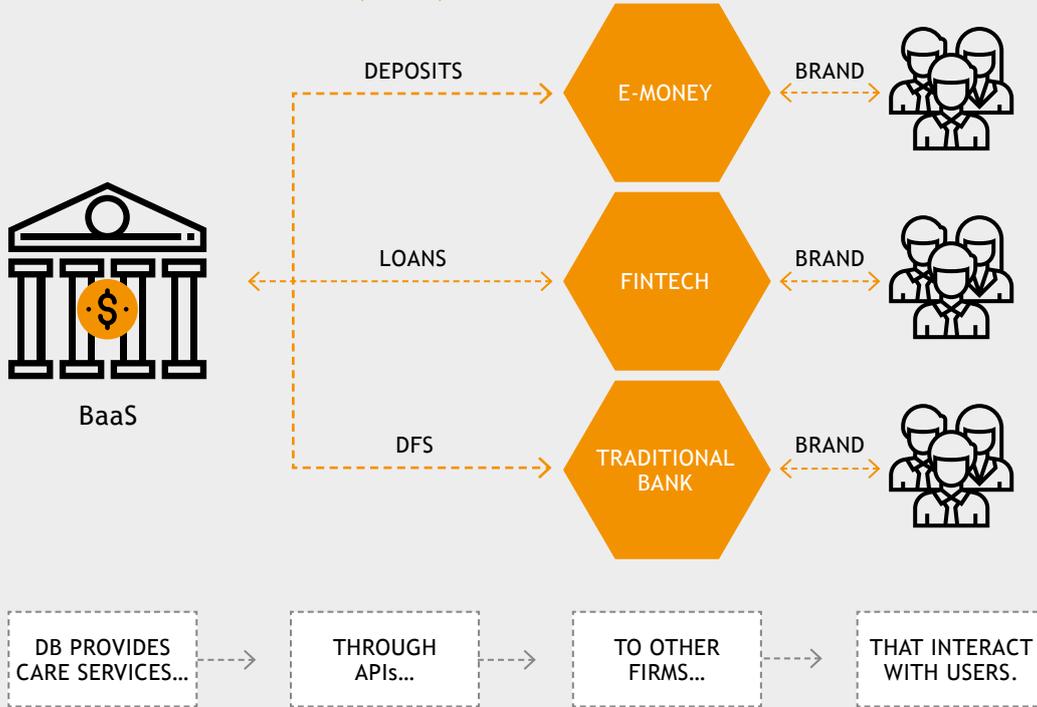
FIGURE 1: OUTSOURCING OPTIONS



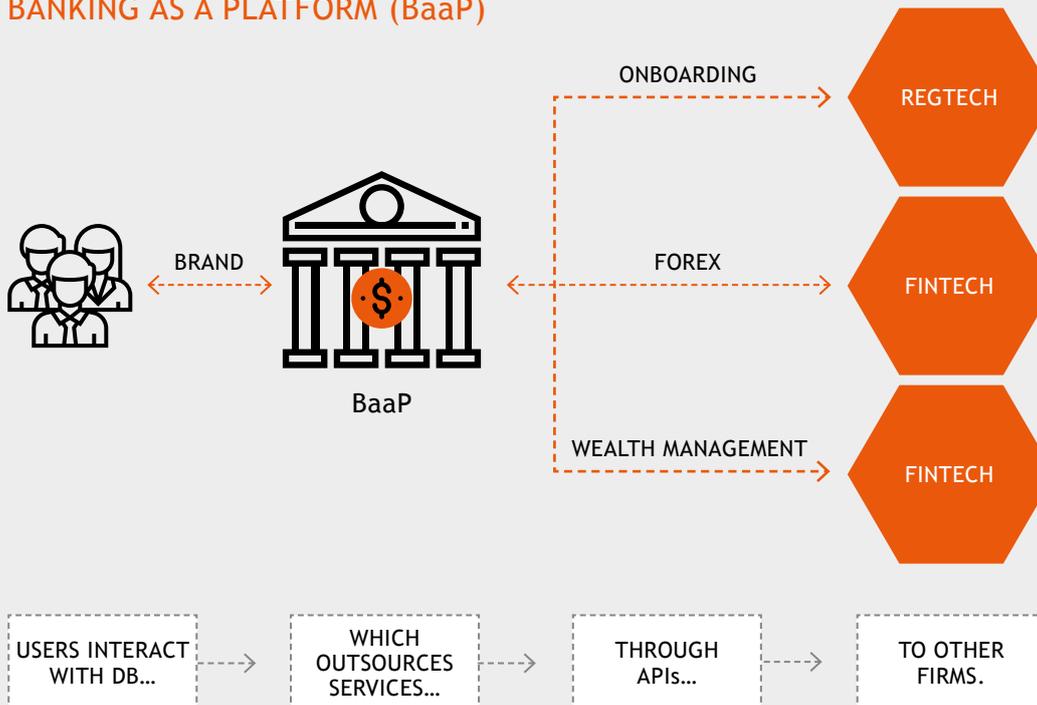
5 The license allows for deposit-taking and lending. However, in late 2020, the bank decided to stop its lending activities due to the impact of the pandemic on their customer base.

FIGURE 2: BANKING AS A SERVICE VS BANKING AS A PLATFORM

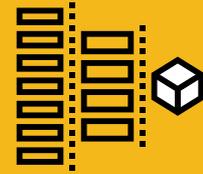
BANKING AS A SERVICE (BaaS)



BANKING AS A PLATFORM (BaaP)



KEY POLICY CONSIDERATIONS ON THE BUSINESS CASE OF DBS FOR REGULATORS



1

Each ownership approach presents different regulatory and supervisory implications. For example, while the emergence of DBs owned by large non-financial firms with an existing sizeable customer base can bolster competition and financial inclusion, it could also mean significant market exposure to possible market conduct practices (risks) for consumers. Hence, regulators should consider ownership approaches within the wider framework of the maturity of the market, consumers, DFS ecosystem as well as the capacity of its regulatory and supervisory systems.

2

It is important to have a clear understanding and undertake a risk assessment of a DB's range and complexity of its products, services, and customer segment. For example, the risk profile of a DB becomes more complex as it provides financial and non-financial products further away from typical banking services. A risk assessment will inform the design of a relevant supervisory framework and allocation of resources.

3

Use of third parties (BaaS and BaaP) introduces an extraordinary degree of complexity requiring regulatory directives on the levels of key management expertise (e.g. fit and proper and CIO rules, etc.) and internal risk management processes. The regulator may require the introduction of relevant policies on IT outsourcing, non-resident providers, and relevant tools in RegTech and SupTech.

4

Regulators could consider promoting BaaS providers as a temporary alternative to a DB licensing framework.

CHAPTER 3: REGULATORY APPROACHES TO DIGITAL BANKS

It is important to recognize that DBs, as a variation of the traditional banking business model, are bound to appear in most financial markets. In this context, there are two main regulatory approaches to DBs. The first is to treat DBs under the existing commercial banking regulatory regime. The second is to develop a set of regulations tailored to the specific risks of DBs and their role in promoting certain policy objectives. In most cases, the adoption of a DB-specific regulatory framework is defined in a bespoke licensing regime.

There are four areas of concern when deciding which approach to take regarding DBs:

- 1) a set of policy objectives pursued by the authorities;
- 2) the maturity of the financial market;
- 3) the presence of non-financial enablers; and
- 4) the suitability of DBs in the existing regulatory landscape.

The main policy objective linked to DBs is to increase the degree of competition in the banking marketplace, as DBs may be able to reach a relevant market share more quickly than newly licensed traditional banks. Another is to facilitate the digitalization of the financial sector and of the economy in general. But the most prevalent policy objective linked to DBs is to promote financial inclusion.

With respect to the maturity of the financial market, it is important to identify the players most likely to promote DBs. Their profiles, described in Chapter 1, including if they are currently under the regulatory perimeter, is highly relevant to form an opinion on whether to encourage DBs and how to shape their regulations. Another factor to consider is the degree of sophistication of financial consumers, specifically digital financial literacy.

DBs ARE BETTER SUITED TO REACH UNDERSERVED AND UNSERVED SEGMENTS OR AREAS

- > There may still be small pockets of people neglected by traditional banks as they are not profitable or hard to reach through standard channels.
- > The mobile network coverage reaches areas with no traditional banking presence.
- > Suitable mobile device ownership rates among the unserved is high and costs (devices and service) are affordable.
- > There are successful e-money providers, but they cannot lend to unserved SMEs.
- > There are successful SME lenders but they cannot grow due to a lack of financing sources.
- > Financial education can be easily integrated into the platforms of DBs.

As discussed in Chapter 1, DBs thrive where a set of non-financial enablers are present. An evaluation of the gaps perceived between the desired state and the current situation on topics such as smartphone usage, coverage and affordability, will apprise the regulator on the likelihood of DBs playing a successful role in promoting financial inclusion. Another factor to consider is the availability of providers of key IT services as well as skilled staff.

Finally, an appraisal of the regulatory framework, its adequacy to cater to DBs specificities as well as the existing capacity to effectively regulate and supervise them must be part of the decision-making process. Also, the regulator should consider the financial infrastructure capabilities to handle DBs typical products and services.

Developing a specific licensing or regulatory framework should not be considered a prerequisite to have DBs in the financial sector. Indeed, 16 jurisdictions have licensed DBs under the general regulatory framework, whereas only a handful have opted for a specific one. It is also worth noting that under both approaches, the regulator may use a phasing scheme or approach as discussed in Chapter 4.

Although there are some nuanced differences in the justifications for creating a specific licensing regime, they all mention promoting financial inclusion and competition in financial services. These authorities also expressed their view of DBs as tools to encourage the digitization of financial services in general.

OJK, INDONESIA

Indonesia took a middle path regarding DBs. The country's bank supervisor, OJK, amended the banking regulations to make explicit reference to digital banking as a business model. However, it ruled out a DB specific licensing framework stating that "a bank is a bank, whatever its business model" (OJK, 2021). Instead, the regulations prescribe that existing as well as new commercial banks may choose to operate as a DB. The main regulatory difference between a standard bank and a DB are specific requirements concerning risk management, governance and fostering a digital financial ecosystem and/or financial inclusion.

3.1 SPECIAL REGULATORY TREATMENT OF DIGITAL BANKS

To a large extent, DBs are regulated under the same rules as traditional banks. Any divergence is usually set in the licensing regime. In some cases, specific provisions continue to remain valid even after an initial phase. This chapter focuses on identifying the most relevant divergences from the standard regulatory framework.

On the other hand, if the regulator sees DBs as a necessary tool to achieve its policy goals, it may elect to relax certain regulatory requirements to ensure that DB business models are competitive and enhance their ability to promote those goals. Generally, regulatory forbearance is a continuation of specific conditions defined in the licensing process and, in some cases, contingent on DBs keeping certain commitments such as a financial inclusion focus.

REGULATORY DIVERGENCE AIMS TO FOSTER POLICY GOALS SPECIFIC TO DBs

- > The regulator may choose to grant DBs regulatory forbearance such as lower minimum capital requirements, simplified risk assessments for capital adequacy purposes, etc.
- > This stance should be linked to specific commitments by DBs to support the achievement of policy goals.
- > Any relaxation should be proportionate, suited to DB business models and should not create an uneven playing field.

Among jurisdictions with specific DB regulatory frameworks, there is a considerable degree of diversity in their approaches, reflecting their novelty.

TABLE 4: JURISDICTIONS WITH DIGITAL BANKS

PHASED		NON-PHASED	
UNDER A SPECIFIC LICENSING AND REGULATORY FRAMEWORK			
Malaysia	Hong Kong	Singapore	Pakistan ⁶
Philippines	Taiwan	South Korea ⁷	
LICENSED AS STANDARD BANKS WITH SOME SPECIFIC PROVISIONS IN THE REGULATORY FRAMEWORK			
Indonesia (See text box)			
LICENSED UNDER THE GENERAL REGULATORY FRAMEWORK			
Argentina	South Africa	Australia	New Zealand
China	United Kingdom	Canada	Dominica
Nigeria	European Union	Japan	Saudi Arabia
Russia	United States	Brazil	United Arab Emirates

6 The central bank in March 2021 published a draft of a proposed digital bank regulatory framework. (State Bank of Pakistan, 2021).

7 The Financial Services Commission started granting licenses for DBs in 2017, under the general regulatory framework. In 2019, the parliament approved a law to exempt DBs from limits on non-financial firms as controlling shareholders and from mandatory face-to-face KYC verifications

DBs SINGAPORE

Singapore takes a different approach regarding the capital requirements of DBs. “While DBs will not be designated as domestic systemically important banks at the onset, the higher risk-based capital requirement is imposed given their untested business models. This will provide a buffer for any unexpected losses.” (MAS 2018a)



Therefore, risk management regulations, under any of the two regulatory approaches, should encompass the characteristics of DBs. In this sense, DBs should be expected to have in place robust operational risk assessment processes, involving members of the board of directors and executive management. In particular, the use of related parties providing key technological services, such as cloud computing, telecommunications, and data analytics, should receive special and periodic evaluations by the supervisor.

Also, integrity and credit risk assessments should anticipate the inherent risks involved in the remote provision of services. The case of lending, therefore, involves robust procedures to ensure detection of ID impersonation, false business information, fraud involving third parties, and alternative credit risk data, among others.

Liquidity risk, on the other hand, should consider the swift outflows of deposits: lack of sticky branch-based deposit accounts, reduced or non-existent

3.2 DBs RISK MANAGEMENT SPECIFICITIES

Another area that may merit specific regulations for DBs is risk management, to address their particular risk profile. Whereas activities such as handling cash and valuables are not relevant, DBs are more exposed to other sources of operational risk. Although not different in nature from those faced by traditional banks, DBs may suffer a significant higher impact on events that affect their ICT systems with outsourcers.⁸

TABLE 5: JURISDICTIONS WITH DIGITAL BANK SPECIFIC REGULATORY FRAMEWORKS

JURISDICTION	DIFFERENCE FROM STANDARD REQUIREMENTS
MALAYSIA	<ul style="list-style-type: none"> > Only common equity (Tier 1) allowed > No capital conservation or countercyclical capital buffers required > Only standardized approaches allowed > Simplified market risk-weighted asset schedule > Minimum liquidity ratio of 25% of total liabilities, simpler than the standard liquidity coverage ratio > No stress testing requirements > Exemption from public disclosures (Pillar 3) requirements > Reduced range of acceptable collateral
THE PHILIPPINES	<ul style="list-style-type: none"> > Minimum capitalization is 50% lower than a commercial bank > No physical branches nor services that require them: valuable objects or documents custody, safety boxes > At least one member of the board of directors and one senior management officer should have a minimum of three years of experience and technical knowledge in operating a business in the field of technology or e-commerce
HONG KONG	<ul style="list-style-type: none"> > Standard requirements will be adapted to suit DBs business models > The board of directors and senior management should have relevant expertise
TAIWAN	<ul style="list-style-type: none"> > No physical branches allowed > Shall be registered as a public company > At least one member of the board of directors should have more than five years of experience in financial technology, e-commerce or telecommunication businesses
SINGAPORE	<ul style="list-style-type: none"> > No access to ATM networks > Can only operate one place of business > Higher capital requirements
SOUTH KOREA	<ul style="list-style-type: none"> > Lower minimum capital requirements > Higher cap on non-financial shareholders stakes > No lending to main shareholders allowed

8 For a detailed description and recommendation on this topic, see AFI 2019.

customer loyalty, and the increased use of fast payment mechanisms are among the specific risk factors for DBs.

An area of concern among some regulators is the DBs goal of achieving rapid growth rates, particularly by those backed by large technology firms. This scenario calls for a corresponding strengthening of risk management capabilities, in both financial and operational areas.

Proper review mechanisms by the highest level of decision-makers should be integrated into the risk management process in recognition of the dynamism of the new products and services associated with DBs. Also, there may be grounds to impose capital add-ons to DBs reflecting their greater inherent operational risks.

3.3 INCUMBENT BANKS OWNERSHIP OF DIGITAL BANKS

There is no persuasive reason to bar established financial institutions, including commercial banks, from owning a DB, either as wholly owned subsidiary or in a joint venture with other non-financial firms. Indeed, the definition of a DB encompasses this possibility. It should be left as a business decision by the financial institution to provide financial services through virtual channels either directly or through a subsidiary. However, the authority may choose to give preference to individuals and companies unrelated to incumbent banks if the market is perceived as oligopolistic. In any case, there should be a clear path for traditional banks to transform into a digital bank. Indonesia's Financial Services Authority makes it mandatory for a traditional bank that fits the profile of a DB to become one for regulatory purposes.

Some regulators see the presence of a financial institution among DB shareholders as a necessary condition. For example, Taiwan's Financial Supervisory Commission mandates that at least 25 percent of the stock of DBs must be held by financial institutions, including foreign banks.

It should be noted that in some jurisdictions, such as South Korea and Taiwan, authorities have issued DB licenses but no new traditional bank licenses. Overall, it is clear among these regulators that digital banking is the preferred mode for new entrants.

Therefore, when debating whether to develop a specific license type or a regulatory framework for DBs, the authority should evaluate the adequacy of the relevant legal and regulatory frameworks, as well as the infrastructure ecosystem.

While deciding which approach to adopt, significant consideration should be given to existing regulatory frameworks and requirements that may be insensitive to or impose unintended restrictions on the key innovations of DBs, such as ownership of a bank, presence, scope of online operations, outsourcing, non-resident players, and strict AML/CFT directives, among others.

EXAMPLES OF DIRECTIVES IN EXISTING REGULATIONS WHICH IMPOSE UNINTENDED LEGAL AND REGULATORY CONSTRAINTS ON DIGITAL BANKS

- > Explicit requirement for banks to have physical branches.
- > Limitations or a ban on firms with significant commercial activities to hold controlling stakes in banks. This may deter companies, such as technology companies or MNOs, who are most likely to promote or invest in DBs.
- > Requirement on the suitability of the first branch (i.e. physical security features, cash handling facilities, access for disabled persons) as part of the licensing process.
- > Absence of legal provisions for electronic signatures.
- > It is not possible to mandate that management and board directors possess appropriate technological skills.
- > Requirements on evidence of profitability of a business plan for a license. This may be incompatible with DBs whose business model aims at breakeven instead of profitability in the short-term.
- > Strict AML/CFT and KYC regulations that discourage remote onboarding, e.g. mandatory fingerprinting of new customers.
- > Consumer protection procedures specify that complaints must be submitted at a physical point of contact.
- > Requirements for new banks to pay for services not needed by DBs, such as cash handling or branch security.
- > The law does not allow for a proportional approach to regulation and/or supervision. This may impose unreasonable burdens and costs on new DBs, such as certificates attesting anti-robbery measures at branches.
- > Agent banking directives oriented towards a brick-and-mortar presence, e.g. directive for cash received by agents above certain levels to be deposited at local branches of the bank.

If these restrictions are present in the market, it may well be justified to look at the development of a specific DB supervisory framework to ensure that DBs can operate safely and be sustainable, while contributing to achieving the policy goals of the authorities.

It is worth noting that even if a regulator chooses not to promote DBs in their financial system, it cannot rule out that a traditional bank may gradually become a DB. Indeed, COVID-19 pandemic-related restrictions have limited physical interactions and compelled online transactions, indirectly transitioning several banks to operate like a DB.

However, there may exist reasons against the development of a friendly DB regulatory environment, due to existing market conditions. For example, in some jurisdictions, traditional banks have been closing or limiting investments in physical branches. In parallel, they have expanded services provided through virtual channels, nudging customers towards this option and these developments will unlikely be reversed when the pandemic ends.

In the United Kingdom, this trend has alarmed the banking regulator, prompting it to issue a guideline for bank closures (FCA, 2021). At the same time, the UK government is examining new legislation to maintain access to cash over the long-term, including by giving powers to the regulator to stop the closure of bank branches.

Therefore, it is imperative that regulators undertake a holistic assessment of all of the relevant approaches, including any possible unintended consequences of the approach to the wider financial sector.

3.4 TRANSITIONING UNREGULATED DFS PROVIDERS TO REGULATED ENTITIES

An important policy consideration for authorities is to determine whether the DB framework can provide incentives for providers of some unregulated quasi-financial services, especially those using digital channels, to become regulated entities. In most cases, unregulated DFS providers focus on underserved or excluded segments of the population.

Therefore, as these firms become DBs, there will be immediate gains in terms of financial inclusion, while enhancing the protection of normally vulnerable clients.

In fact, many successful European DBs started as DFS providers, particularly in payment services. This trend is less obvious in other regions where regulatory and business hurdles are normally higher. Much less common are mergers between providers of different products and services, such as e-money, payments, and crowdfunding, to form a DB.

A persuasive argument can therefore be made for the authority to provide a simplified path for existing unregulated DFS providers to become a licensed DB. This approach may involve a phased regulatory regime with lower initial capital requirements, acknowledging the experience gained in the unregulated business on an equal footing to that of traditional banks, among others.

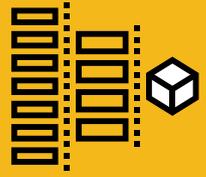
In a more extreme scenario, if the authority deems unregulated DFS activities as a source of financial instability, it may combine the offer of a DB license with enforcing a ban on unregulated activities. Thus, a source of instability may be safely removed avoiding a sudden withdrawal of probably needed services for the underserved.

3.5 TECHNOLOGY NEUTRALITY

The principle of technology neutrality must be considered when defining policies on DBs, as their business models significantly rely not just on the latest technological innovations, but also in rapidly integrating new developments in their operations. Nevertheless, this sound approach must not preclude acting whenever a technological innovation threatens financial stability, the interest of customers, or market integrity.

⁹ A survey by S&P Global Market Intelligence found that 52% of US customers visited bank branches less frequently and two thirds of these anticipate continuing or further decreasing their current levels of branch utilization after the pandemic officially ends. (S&P Global Market Intelligence, 2021)

KEY POLICY CONSIDERATIONS ON APPROACHES TO REGULATING OF DIGITAL BANKS

**1**

Fully licensed DBs should be able to engage in the same range of activities as traditional banks, except running a branch network.

2

The positive aspects of allowing large non-financial firms to be significant shareholders of DBs should be weighed against the risks of conflicts of interest in their lending activities.

3

Policies on DBs should be technology neutral to allow lasting innovations subject to the overarching goals of protecting customers and stability of the financial system.

4

Restrictions on branches and other physical offices should be proportional, allowing DBs to offer contact points to handle customers complaints and special circumstances, such as inheritance or fraud.

5

Use of third parties (agents, retailers) to provide CICO services and complete onboarding processes must be explicitly excluded from restrictions on having a physical presence.

6

The regulator must make it clear to those interested in setting up a DB that it will not allow business strategies based on an aggressive growth path and/or the accelerated introduction of novel products and services associated with Big Tech firms.

7

Any regulatory forbearance introduced to promote DBs, and their financial inclusion aims, must have an expiry date. DBs stakeholders must have a clear timeline to close any regulatory gap with existing banks. This flexibility should also be tied to operational restrictions, thus providing a clear incentive for DBs to prepare for the end of any regulatory benefit.

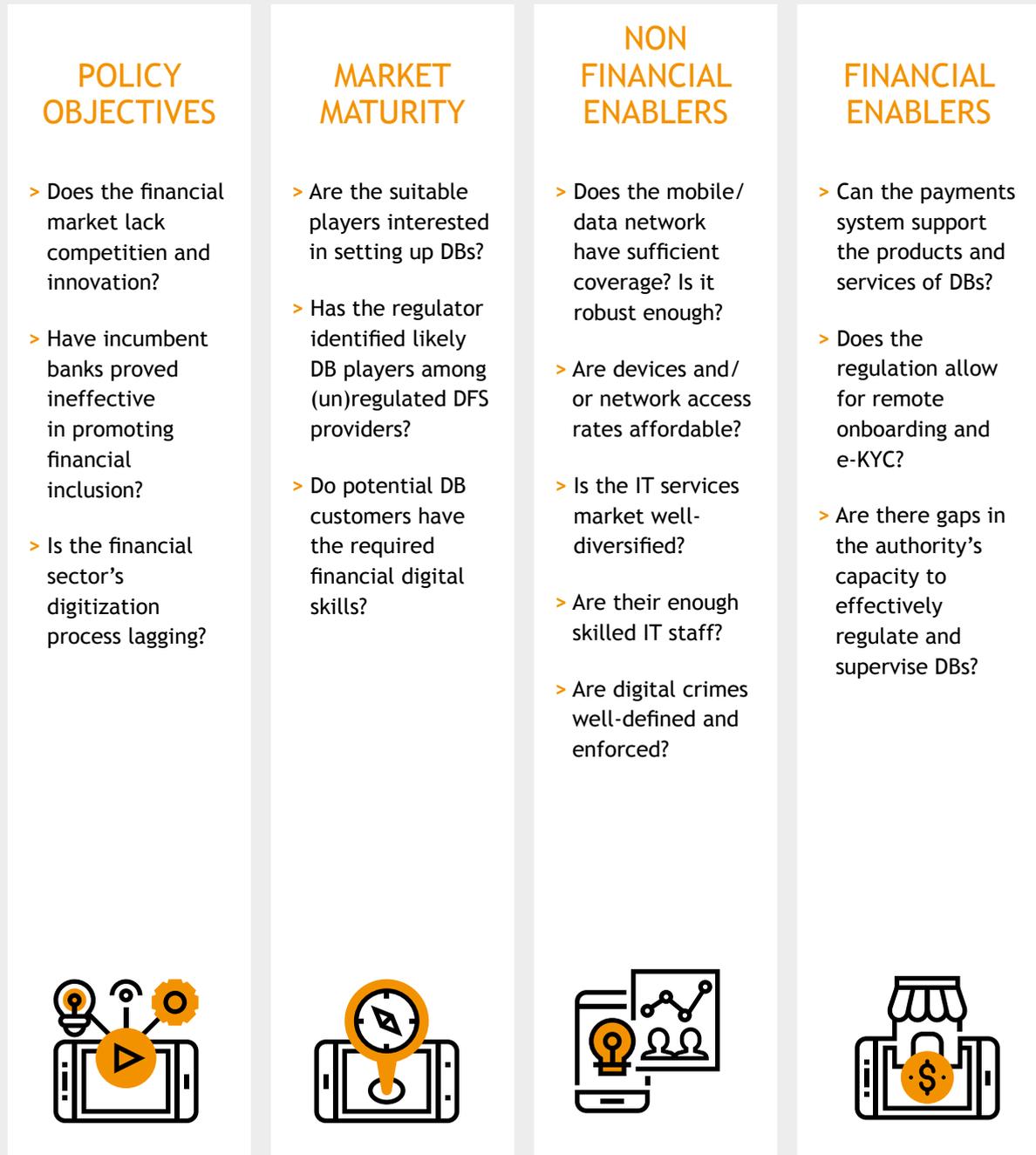
8

Regulations limited to DBs, such as capital add-ons, should be risk-based, aimed at their specific characteristics, while regulators should carefully avoid creating undesired outcomes.

9

There should be a clear justification to define any product or service allowed exclusively to DBs, such as requiring lower operating costs, aimed at excluded groups, etc.

FIGURE 3: REGULATORY APPROACH TO DBs: POLICY CONSIDERATIONS



CHAPTER 4: LICENSING

As discussed in the previous chapter, a DB-specific regulatory approach usually involves the development of a unique licensing regime for DBs. This chapter will explore key elements, showing a clear divergence from standard licensing requirements and processes, to cater to the specific characteristics of DBs and related policy goals.

As previously mentioned, all regulators that have developed a DB licensing regime mention financial inclusion as one, if not the main, justification for creating a new type of license. There are, nevertheless, different approaches on how the authorities see the commitments of DBs in this field. Some, such as Singapore, set explicit measures such as no-fee accounts, whereas others set general expectations. None set explicit quantitative targets.

LICENSING FRAMEWORK - KEY ISSUES

- > Financial inclusion goals
- > Physical presence
- > Promoters experience in internet/IT/e-commerce
- > Technical experience and the qualification of leadership and key management personnel
- > Business plan with risk assessment and risk mitigation mechanisms - specifically ICT and operational risk
- > Capital requirements
- > Range permissible services during the initial phase
- > Phasing out of regulatory divergence

4.1 PHYSICAL PRESENCE

The main characteristic of a DB is the lack of a branch network, enabling DBs to minimize operational costs and providing competitive products and services for consumers.

However, the regulation must recognize that the sole use of virtual channels may have some adverse impacts on consumers, especially the vulnerable.

TABLE 6: JURISDICTIONS WITH DIGITAL BANK SPECIFIC LICENSING FRAMEWORK FINANCIAL INCLUSION EXPECTATIONS

JURISDICTION	INCLUSION GOALS	PRICING	DIGITAL FINANCIAL EDUCATION
HONG KONG	DBs should play an active role in promoting financial inclusion. DBs should engage primarily in retail businesses.	No minimum account balance requirement. No low-balance fees.	Customers must be made aware of their responsibilities to maintain security in the use of virtual banking services.
SINGAPORE	Applicants must provide a clear proposal on how it can cater to unmet financial needs or underserved segments of the market through an innovative and sustainable digital banking business model.	Not mandatory. DBs expected to potentially offer no minimum deposit accounts or low-balance fees.	None. However, DB's primary value proposition should not be providing unsecured lending to vulnerable borrowers.
MALAYSIA	DBs expected to primarily cater the underserved and unserved. The commitment of DBs to expand access to these segments will be part of a performance indicator.	Not explicit. Products should be designed to improve the overall financial well-being of the consumer.	Not explicit. Financial products should foster responsible usage.
TAIWAN	DBs expected to drive market innovation, thereby enhance financial inclusion.	None	None
THE PHILIPPINES	Not explicit	Not explicit	Not explicit
SOUTH KOREA	Not explicit	Not explicit	Not explicit

For example, some prospective customers may need special support with onboarding, existing customers may require special attention when making complaints and redress, or, more generally, how to ensure access to cash when networks are down.

Therefore, even though the regulation should impose restrictions on DBs opening transactional branches, the wording should allow for a limited number of physical points of contact between customers and the DB. This could be especially important in emerging markets where consumers may have lower digital financial capabilities and limited connectivity.

DBs should also be allowed to use agents, including large retailers, to provide access to cash in addition to services through ATM and POS networks.

MONETARY AUTHORITY OF SINGAPORE

The Monetary Authority of Singapore holds an exceptional view on this issue, as it does not allow DBs to operate ATMs or join any existing ATM networks. The explicit objective is to force DBs to adopt innovative digital ways of serving customers and supporting the digital economy.



4.2 THE TECHNOLOGICAL NATURE OF DIGITAL BANKS

DBs have a heightened reliance on technology than traditional banks. Hence, it is important to set specific requirements on relevant and up-to-date technological expertise among those at the board level and top management. These requirements should also include technical change management skills as the set of services and tools of DBs will likely continue to evolve.

A key aspect of a DB's risk management is the plethora of services provided by external firms, either as an outsourcing contract or partnership agreement. Such arrangements should be explicitly laid out in license applications, and subject to thorough evaluation by the licensing authority or, if necessary, by an independent third party.

The license application should also reflect the understanding by the proposed directors and top management of cybersecurity threats and spell out how these will be addressed, while the licensing framework should ensure that new DBs can safely start offering services.

4.3 PHASED LICENSING REGIME

When designing a DB specific regulatory framework, regulators may opt to establish a transitory period during which new DBs have certain provisions relaxed and/or face limits or restrictions on activities. In some jurisdictions, this is a regulatory tool available for authorities for regulated entities in general.

There are two main justifications to impose a phased regulatory regime. On one hand, the authority may conclude that new DBs require some regulatory forbearance to achieve their financial inclusion goals and/or to successfully overcome identified barriers.

On the other, DBs will be new actors deploying innovative models and products, many of them untested in the financial market. Therefore, it is highly possible that unexpected problems will arise. Over time, most will adjust their internal procedures to manage these risks. In parallel, the supervisor's techniques need to adapt, while ensuring their staff has the required skills to fulfill their duties. Therefore, the authority may seek to mitigate the impact of any DB failures due to their untested business models, while simultaneously providing time to close any gaps in skills and tools.

These developments, however, will take time. Hence, the rationale to set a gradual licensing regime defining distinctive phases. Each phase may impose limits on the range of products and services a DB may offer, caps on deposits or loans, the number or type of clients, etc. The scheme must define explicit goals to advance to the next phase. As discussed in Chapter 3, these regimes do conclude a gradual convergence to the standard regulatory framework.

4.4. CAP ON THE NUMBER OF DIGITAL BANK LICENSES TO BE GRANTED

Publicly announcing that only a handful of licenses will be granted is a good idea as this ensures that the regulator has adequate resources to analyze each viable proposal while the supervisor includes the new licensed DBs in its workplan.

Another benefit from setting a batch of licenses is that it prompts those interested in submitting their applications at the same time, thus allowing the regulator to compare them and quickly select those considered most viable.

CENTRAL BANK OF THE PHILIPPINES

The Central Bank of the Philippines explicitly considers the case of already licensed financial institutions converting to DBs. These conversions can be voluntary or mandatory if the authority believes that the existing bank already meets the definition of a DB. The conversion process involves closing all physical branches and adjusting its services within three years.

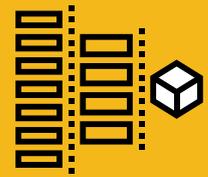

TABLE 7: JURISDICTIONS WITH DIGITAL BANK SPECIFIC LICENSING FRAMEWORK GRADUAL REGULATORY CONVERGENCE AND CAP ON THE NUMBER OF LICENSES

JURISDICTION	GRADUAL CONVERGENCE	CAP
MALAYSIA	<ul style="list-style-type: none"> > Yes, 3-5 years > Subject to reaching a specific minimum capital level and achieving business plan goals > Cap on total assets 	Up to 5 in the first batch
SINGAPORE	<ul style="list-style-type: none"> > Yes > Subject to reaching a specific capital level within 3-5 years > Cap on total deposits > Cap on individual deposits > Restrictions on the scope of depositors 	5 in the initial batch
SOUTH KOREA	No	2 in the initial batch
THE PHILIPPINES	No	Not implemented
HONG KONG	No	No
TAIWAN	No	No

TABLE 8: DB SPECIFIC VS GENERAL LICENSING FRAMEWORK ANALYSIS

JURISDICTION	SPECIFIC LICENSE	GENERAL FRAMEWORK
STRENGTHS	<ul style="list-style-type: none"> Tailored to DBs unique characteristics Allows for exit plans compatible with unproven models 	<ul style="list-style-type: none"> No need to alter the current regulatory framework New banks start under a known and used framework Does not require justification Avoids regulatory divergence
WEAKNESSES	<ul style="list-style-type: none"> Introduce a new type of financial institution May be inconsistent with a supervisor's capabilities Requires adequate justification 	<ul style="list-style-type: none"> May not be conducive to innovative business models DBs may not serve as tools promoting financial inclusion DBs unique risk profiles may not be sufficiently accommodated in the regulatory framework
OPPORTUNITIES	<ul style="list-style-type: none"> New banks may be used as tools for policy goals such as addressing the unserved/underserved segments A way to overcome existing legal constraints May drive innovations in the financial market Allows for a proportional approach to regulation 	<ul style="list-style-type: none"> Changes linked to policy goals may be applied to both existing and new banks, such as mandatory basic accounts for unserved segments, etc. Compatible with the general trend to the digitalization of the financial sector Allows for the supervisor to gradually achieve the required skills and competencies
THREATS	<ul style="list-style-type: none"> May lead to regulatory divergence and arbitrage May create an uneven playing field with existing banks Individual failures may affect other DBs 	<ul style="list-style-type: none"> Regulatory framework may fail to reflect the specific risks of DBs DBs may fail to achieve profitability or to lower the cost of their services and products May reduce incentives to set up DBs

KEY POLICY CONSIDERATIONS IN THE LICENSING OF DBs

**1**

An explicit mandate may need to be introduced for DBs to cater to the underserved and unserved. While DBs possess suitable characteristics to address these segments of the population, their business plans may not include them as targets.

2

Applicants should be made aware that the authority expects products and services to be affordable and adapted to the economic capabilities of the underserved or potential customers who are excluded.

3

The proposed business plan will preferably include digital financial education.

4

Conditioning the license to specific financial inclusion commitments (e.g. offering deposit accounts with no or low fees and no minimum initial balance) may be contested on competition grounds where traditional banks do not have the same commitments.

5

Possible initial restrictions on the range of services and size of newly licensed DBs. The lifting of these limits should be subject to the DB achieving quantifiable milestones.

6

Use the period with DBs under temporary restrictions to implement measures to increase the supervisor's staffing capabilities and acquire or develop tools to specifically monitor the activities of DBs.

7

Top executives, management and members of the board should have robust technological skills to not only understand the inherent operational risks but to have a clear grasp of the technological change process.

8

Request an assessment of the proposed ICT infrastructure and external services, possibly by an independent expert.

9

Set explicit criteria of the expected reasonable rate of growth in the proposed DB business plan. This should be enforced by linking compliance with the rate to the lifting of restrictions.

10

Request a plan to wind up the DB in case of failure, updated on each phase if an unwinding takes place.

11

Allow for a limited physical presence if the proposer provides adequate justification.

CHAPTER 5: CONSUMER PROTECTION AND MARKET CONDUCT

Since a DB is a type of DFS provider, most policy considerations and recommendations regarding DFS consumer protections, literacy and market conduct are equally relevant¹⁰. There are, however, differences that distinguish consumer protection issues at a DB from other DFS providers: cybersecurity, data privacy, digital financial literacy, and handling complaints and complex issues.

5.1 CYBERSECURITY

With a platforming approach to the digital production and distribution of its products and services, DBs have multiple providers of key services, including other DFS providers. This characteristic significantly increases the entry points for criminal activity and for technical failures, compared with those of other DFS providers. Thus, the customers of DBs may suffer financial losses from events that take place with a business handling their funds or data they were not even aware of.

5.2 DATA PRIVACY

Similarly, the constant interaction of DBs with external providers means that customer data is shared among a wide range of other firms, including some located in other jurisdictions. This transit and storage of personal data outside DBs exposes their customers to data breaches at multiple points at any given time. DBs, where required, ask customers to provide broad consent to data sharing agreements between the DB and outsourcing firms.¹¹

5.3 DIGITAL FINANCIAL LITERACY

As discussed before, DBs are usually required to play an active role in promoting financial inclusion. Therefore, it is highly probable that many of their customers are first-time users of financial services. This characteristic, coupled with the lack of face-to-face interactions, presents a challenge for those who are newly included financially, who not only have to deal with unfamiliar financial terms and transactions, but may also not have the appropriate skills to safely use digital services. Poor

or inexistent digital financial literacy also compounds risks in the other two areas.

The customer base of DBs may encompass young digitally-savvy users and more vulnerable customers, such as older persons who are digitally illiterate. There may be also a gender gap in digital literacy in certain jurisdictions. This mix poses a threat to the most vulnerable customers, as DBs may opt for a single approach to labeling products and services, information and availability.

5.4 HANDLING COMPLAINTS AND COMPLEX ISSUES

The lack of physical branches for DBs presents a challenge to the traditional mechanism of handling complaints. Normally, customers of DBs should be able to submit complaints using the same channels available for transactions, thus enjoying the same fast and low-cost nature of virtual channels.

However, not every type of complaint can be safely and effectively handled digitally. Customers who fall victim to credential theft, for instance, may face considerable barriers in identifying themselves by phone or online with their DB. Also, vulnerable customers and those in special circumstances, for example, relatives of deceased customers, may not be familiar with using virtual channels to submit queries or complaints to their DBs.

5.5. ISSUES CONCERNING BIG TECH-OWNED DIGITAL BANKS

DBs are likely to have close relationships with large non-financial firms, i.e., Big Tech and MNOs, with whom they share customers. The intermingling of a consumer's commercial and financial dealings could have negative effects on consumer protection and market conduct standards, a scenario not adequately considered in existing rules.

¹⁰ For a comprehensive review on these topics in the context of DFS and financial inclusion, see AFI 2020.

¹¹ For a relevant overview of the issues raised by outsourcing in banking, see AFI 2021.

CUSTOMERS SHOULD NOT BE HARMED BY OWNERSHIP LINKS BETWEEN DBs AND LARGE NON-FINANCIAL FIRMS

- > Financial sector data privacy regulations should prevail over more lenient ones in the commercial sector.
- > Common clients of DBs and non-financial firms should have clear indications who they are dealing with in their transactions.
- > DB customers with no commercial relationship with a parent non-financial firm should be treated on equal terms with clients that do.
- > A DB's use of their parent clients' data to feed an alternate credit scoring system should be transparent and reviewed to avoid unfair biases.
- > A non-financial firm should not use preferential financial terms in commercial transactions (e.g., automatic deferred payment for services or goods) as a customer acquisition strategy for its DB.

5.6 WIDER IMPACTS

Lapses in consumer protections of DBs may not only harm their customers, but also have a wider impact on financial inclusion and even market stability.

Poor product design, inadequate complaint processing, and limited or no digital financial literacy programs on behalf of a DB may put off newly included customers, causing widespread mistrust of regulated financial services. A vulnerable DB customer may lose modest amounts in his or her account, but these may represent lifelong savings. Such an event will undoubtedly deter relatives and friends from opening a DB account.

Unsafe digital financial behavior by customers, on the other hand, increases the risks of cybersecurity events for their DBs and to other interconnected DFS providers.

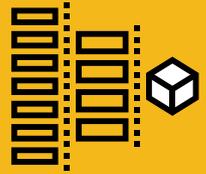
Some jurisdictions have set explicit commitments and recommendations regarding these topics in their DB regulatory frameworks, in particular, ensuring customers can submit complaints at physical offices.

Regulators should continue to develop specific safeguards for the customers of DBs as their number and the range of unique products and services increase.

TABLE 8: JURISDICTIONS WITH DIGITAL BANK SPECIFIC LICENSING FRAMEWORKS, CONSUMER PROTECTIONS, MARKET CONDUCT AND FINANCIAL LITERACY PROVISIONS

JURISDICTION	SPECIFIC TO DBs
MALAYSIA	<ul style="list-style-type: none"> > Commitment to ensuring responsible use of financial services. > Mechanisms to address customer queries or complaints wholly through digital means. > Products must meet the needs and financial circumstances of customers. > DB may share its customer information with its parent bank or other parties only for legitimate purposes. > DB may access the customer base of its parent or affiliate companies or shareholders subject to compliance with all relevant data protection laws and regulations. > Administrative office(s) may receive customer complaints.
THE PHILIPPINES	Head office may receive customer complaints.
HONG KONG	<ul style="list-style-type: none"> > DB's head office must deal with customers enquiries or complaints. > DB understands that risks to customer data protection are accentuated and has mitigants in place. > Customers must be made aware of their responsibilities in maintaining security while using services. > Outsourcing arrangements must not compromise customer information, confidentiality and integrity.
TAIWAN	DB may have a customer service center.
SINGAPORE	<ul style="list-style-type: none"> > DB's primary value proposition should not be providing unsecured lending to vulnerable borrowers. > DB may offer e-wallets but must make it clear to customers that funds in such e-wallets are not deposits, and therefore not covered under the deposit insurance scheme.
SOUTH KOREA	DB may conduct its banking business through physical locations if deemed essential for its users' protection or convenience. DB shall report in advance the content, method and scope.

KEY POLICY CONSIDERATIONS ON CONSUMER PROTECTION AND MARKET CONDUCT

**1**

Consumer protection and market conduct policies should take a holistic view, considering consumers, the DBs and the regulator's perspectives.

2

DB customers should have the same level of protection as those of traditional banks.

3

The board of directors of a DB should evaluate the complexity of its partnerships and outsourcing arrangements and their impact on customers.

4

Any arrangement between a DB and external service providers must clearly define which party is responsible when a DB customer is harmed, either financially or due to a breach or violation of their data privacy rights.

5

DBs must be held responsible for any problem a customer experiences caused by third parties outside the regulatory perimeter.

6

DBs must periodically review how their outsourced service providers ensure that customer transactions are dealt with correctly and any fault is quickly resolved. DBs must report their findings to the regulator.

7

The regulator must impose an obligation on DBs to identify whether there is a knowledge gap among its customers and ensure that the wording and information available on their services is appropriate for the least digital financially educated among their users.

8

DBs should promote safe digital financial behavior as part of their financial inclusion commitments.

9

The customers of DBs can easily access and obtain information on all products and services being offered using the same range of devices and channels available for transactions.

CHAPTER 6: SUPERVISORY REGIME

The approach to the supervision of DBs, whether they hold a specific license or operate within the general commercial banking framework, has been until now, not that different to traditional banks. In fact, the challenges to supervise DBs are, to a great extent, the same as supervising increasingly digitized traditional banks.

This does not mean that supervisors should be using a traditional supervisory approach to DBs. Instead, there is a clear sense that technological innovations make it necessary to change methods and tools. A survey of 60 financial authorities found that “two-thirds of respondents expect the current industry trends to change the traditional risk-based supervisory model to at least ‘some extent’” (Oliver Wyman 2018, page 11) by 2025 in response to innovative market entrants, shifts in providers and increased inter-connectivity between entities. All of these trends are closely linked to the entry of DBs into the market.

THE UK APPROACH

The Prudential Regulation Authority (PRA), the main financial supervisor, set a policy for supervising ‘new and growing banks,’ a term that encompasses DBs.

The PRA expects these banks to have a “settled business model, are profitable or have a credible strategy to achieve profitability supported by capital, a fully embedded risk management framework, and a well-developed governance structure.” (PRA 2021, page 28)

At the same time, the supervisor recognizes that its supervisory perspective needs to evolve, indicating that it “is committed to being open to working with banks to find solutions to overcome difficulties including being willing to adapt its supervisory approach where a solution is in line with its objectives.” (PRA 2021, page 29)



The main challenges for supervisors arising from DBs are¹²:

- > A platform approach to providing services, resulting in key parts of banking operations being handled by different firms outside the standard supervisory perimeter.
- > Restricted visibility and understanding of the links between DBs and those providers, particularly those offering services from other jurisdictions.
- > New forms of interconnectedness and concentration risks arising from BaaS and BaaP models.
- > DBs overreliance on third parties in carrying out customer due diligence procedures.
- > The role of large non-financial firms as controlling shareholders of DBs.
- > Coordination with other authorities. (e.g. telecommunications regulator)
- > Frequency of reports inconsistent with the speed of DBs operations and probable build-up of problems.
- > The need to update tools and data processing capabilities to efficiently handle the information to act proactively.
- > The set of skills required by the supervisor’s staff amid a high demand for experienced professionals.
- > Ensuring financial stability and consumer protection while encouraging innovation.

Each of these issues will have different solutions according to each supervisor’s powers, resources and the extent of digitization of their financial systems. The responses to overcome these challenges are evolving along with the ascent of DBs in the financial sector.

Overall, it is important for supervisors to recognize the technological dimensions of DBs activities, implying a greater focus on technological and operational risk assessments as the impacts of related adverse events are heightened. The supervisory process extends to data protection and privacy assessments which could be done independently or through designated third parties.

In particular, the high dependence of DBs on external service providers, most of them non-financial firms, raises the issue of how a supervisor can properly assess the viability and risks of those providers.

¹² These challenges summarize findings by the European Banking Authority (EBA, 2021), Basel Committee on Banking Supervision (BCBS, 2018), the European Banking Authority (Hakkarainen, 2020), the Association of Supervisors of Banks of the Americas (ASBA, 2019) and the Organisation for Economic Co-operation and Development (OECD, 2020).

As changes to its remit are difficult, a supervisor must ensure that non-financial firms providing essential and critical services provide DBs with regular reports and independent assessment regarding their operational and financial soundness. These reports should be shared with the supervisor.

At the same time, the same technological innovations that have made DBs viable alternatives to traditional banks, can be used by the supervisors. In fact, supervisors may consider adopting SupTech tools initially on newly licensed DBs.¹³ These are more prepared to cater to automated reporting and surveillance systems, using APIs. An additional benefit is lower compliance costs, enhancing DBs financial inclusion capabilities. The supervisor will then be able to use the experience gained to extend the use of those innovative tools to traditional banks.

MEXICO'S API FRAMEWORK

Following the approval of a FinTech Law in 2018, both the Central Bank of Mexico (Banco de Mexico, 2020) and the National Banking and Securities Commission (CNBV, 2020) issued rules setting the process for registering, approving and supervising the use of APIs within the financial sector. Whereas the central bank regulates APIs for credit information societies and payment clearing houses, CNBV regulates APIs for all other financial intermediaries, money transmitters, financial technology institutions and sandbox participants.

API rules specifically aim to regulate the flow and exchange of three types of data (open, aggregated and transactional) among data requesters and data providers, as mandated by article 76 of the FinTech Law, to build a secure ecosystem. Consequently, providers of APIs and other open finance related services are within the oversight perimeter.



KEY POLICY CONSIDERATIONS ON THE SUPERVISION OF DIGITAL BANKS

1

Expansion of the supervisor's oversight powers to include all key players, either directly, through cooperation with other authorities and/or through independent risk assessors.

5

Supervisors should pursue strong coordination mechanisms with authorities with competence over other large non-financial firms with controlling stakes in DBs.

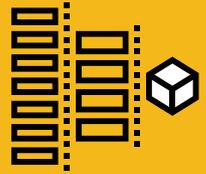
9

Financial reporting requirements should be adjusted accordingly, looking for more frequent reports at lower costs for DBs by using straight-through processing.

10

Supervisors should consider an industry-financed data warehouse facility as well as the use of APIs for DBs reporting requirements.

¹³ The World Bank published a document examining the available SupTech tools for market conduct supervision (World Bank, 2021).



2

Supervisors should consider asking for changes to their legal mandate to grant them the ability to extend oversight powers to providers of essential services, such as BaaS, cloud computing, e-KYC, APIs and others.

3

Supervisors should participate in open finance (open banking) implementation initiatives and policy forums.

4

There is a need for closer collaboration with other regulators (data protection, competition, telecom, ICT, cybersecurity) to take a coordinated approach to supervising DBs.

6

Supervisory processes must include an assessment of the concentration risk on key services outsourced by DBs, such as cloud computing, BaaS and APIs.

7

Supervisors should be full members of national committees monitoring cybersecurity threats and implementing responses. DBs must have direct representatives in these bodies, along with other financial institutions, to ensure that the information and vulnerabilities they may detect are shared among other members.

8

The supervisor should seek to incorporate new tools (SupTech) to gain a more detailed and up-to-date view of DBs financial conditions.

11

As part of its supervisory process, the authority must identify and evaluate non-human screening applications, based on AI and similar tools, to gauge whether users are being unjustifiably penalized. Client onboarding and account closures through automated AML/CFT tools, credit application decisions based on non-financial data, and inappropriate product offers are among the most relevant areas of consumer harm.

12

The supervisor should include among its offsite surveillance processes, the monitoring of DBs social media feeds as well as channels focused on financial services.

13

Current supervisory processes and data handling capabilities are not adequate for DBs business models.

ACRONYMS

AFI	Alliance for Financial Inclusion
AI	Artificial Intelligence
AML	Anti-Money Laundering
API	Application Programming Interface
ASBA	Association of Supervisors of Banks of the Americas
ATM	Automated Teller Machine
BaaS	Bank as a Service
BaaSP	Bank as a Platform
BCBS	Basel Committee on Banking Supervision
CGAP	Consultative Group to Assist the Poor
CEMCWG	Consumer Empowerment and Market Conduct Working Group
CFT	Combating the Financing of Terrorism
CICO	Cash-In/Cash-Out
CNBV	Comisión Nacional Bancaria y de Valores
DB	Digital Bank
DFS	Digital Financial Services
DFSWG	Digital Financial Services Working Group
EBA	European Banking Authority
ECAPI	Eastern Europe and Central Asia Policy Initiative
EU	European Union
FCA	Financial Conduct Authority
FSI	Financial Stability Institute
ICT	Information and Communications Technology
IT	Information Technology
JV	Joint Venture
KYC	Know Your Customer
MAS	Monetary Authority of Singapore
MNO	Mobile Network Operator
NFC	Near-Field Communication
OECD	Organisation for Economic Co-Operation and Development
OJK	Financial Services Authority of Indonesia (Otoritas Jasa Keuangan)

POS	Point of Sale
PRA	Prudential Regulation Authority
SME	Small and Medium-Sized Enterprise
UK	United Kingdom
USA	United States of America
WB	World Bank

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