BANK FOR INTERNATIONAL SETTLEMENTS

Public policy for big techs in finance

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Introduction

The financial sector has always been information-hungry and an avid adopter of technology. It is said that in the Renaissance, Venetian traders were among the first adopters of the telescope, to keep watch for incoming ships. Early information could give traders an edge in buying and selling assets. Financial institutions were also among the first adopters of the telegraph and of satellite images, again aiming to achieve an information advantage. Over time, the volume of information available has grown and grown – and finance has continued to use this information to allocate funds and risks in the economy.

Is today any different? We have smartphones, machine learning and blockchains, but are we seeing fundamental changes in the role of information?

In my remarks, I'd like to focus on one thing that has changed, namely *who* is offering financial services. Recently, we've seen the entry of big techs, which are able to exploit their massive data, networks and range of activities. The entry of big techs requires a comprehensive public policy approach that combines financial regulation, competition policy and data privacy.

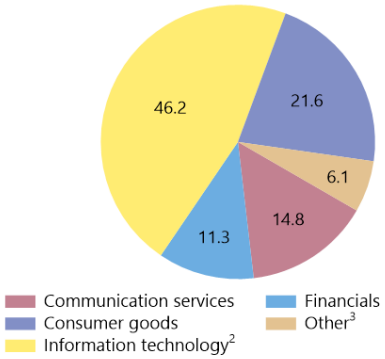
Big techs operate a broad range of business lines and have grown very large

Big techs have done something quite remarkable: within less than two decades: they have gone from being startups to dominating a range of markets. This is unprecedented. Today, their reach extends across a wide range of industries, of which finance is only one. You can see this in the left-hand panel of Slide 1. Indeed, financial services make up only 11% of big techs' revenues so far.

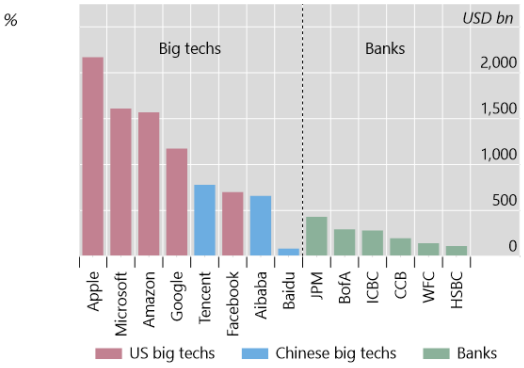
And – to quote the Latin proverb "nomen est omen" ("the name is a sign") – they have become very large. As a result of their control over key digital platforms in e-commerce, search and social media, big techs are able to gather, process and communicate huge volumes of data. Not surprisingly, they have become among the largest companies in the world, operating in multiple jurisdictions. As seen in the right-hand panel of Slide 1, big techs like Google, Apple, Facebook and Amazon in the United States and Alibaba and Tencent in China have market capitalisations that far surpass those of the largest banks.

Big techs operate a broad range of business lines and have grown very large

Big techs' revenues by sector of activity[1]



Market capitalisation of big techs and banks[4]



[1] Shares based on 2018 total revenues, where available, as provided by S&P Capital IQ; where not available, data for 2017. The sample includes Alibaba, Alphabet, Amazon, Apple, Baidu, Facebook, Grab, Kakao, Mercado Libre, Rakuten, Samsung and Tencent. [2] Information technology can include some financial-related business. [3] Includes health care, real estate, utilities and industrials. [4] Data for 14 Jan 2021.

Sources: BIS, "Big tech in finance: opportunities and risks", *Annual Economic Report 2019*, June, p 55–79; Refinitiv.

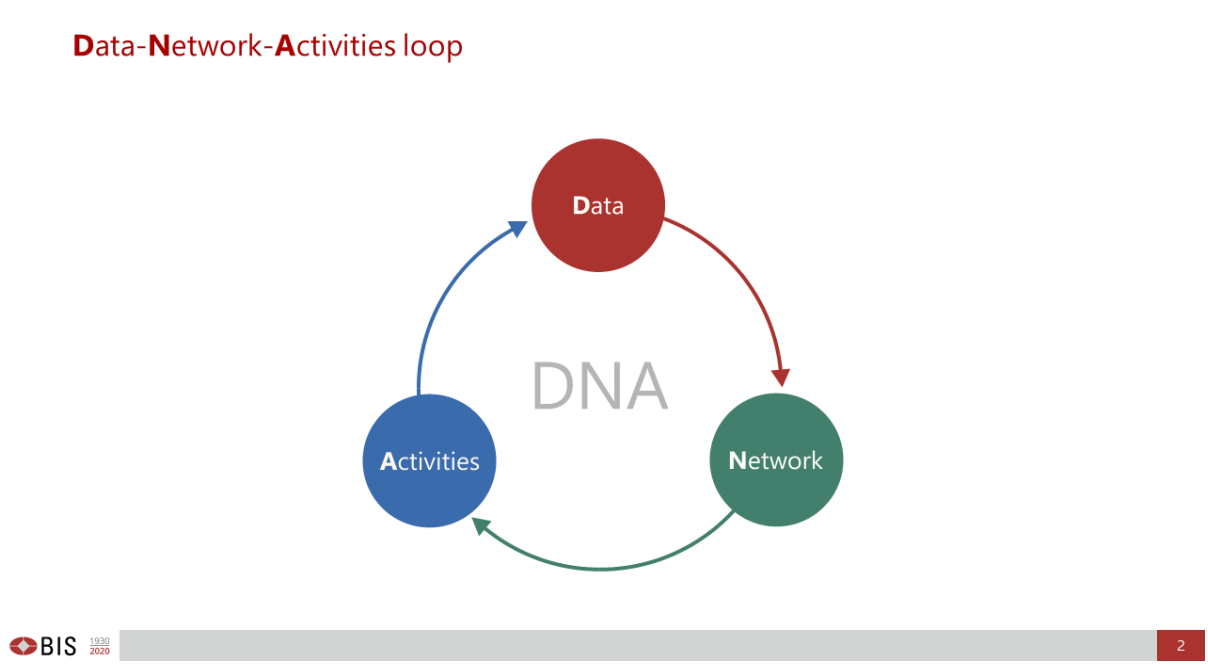
Why? The DNA of big techs

Why have they gotten so large? Big tech business models rest on enabling direct interactions among a large number of users. This may be in e-commerce – such as Alibaba and Amazon; social media – such as Tencent or Facebook; or search – such as Baidu or Google.

An essential by-product of their business is the massive user **data** they collect. They exploit natural **network** effects, generating further user **activity**.

As an example, payment services generate transaction data, network externalities facilitate the interaction among users, and this helps serve needs related to other activities (such as credit). But these activities will provide further data and will again fuel the DNA feedback loop.

Data analytics, network externalities and interwoven activities (DNA) constitute the key features of big techs' business models (Slide 2). These three elements reinforce each other.



The DNA concept helps us in two ways. First, it helps us to compare banks' and big techs' business models along these three dimensions. Second, it can help us to understand the main benefits and challenges that arise from the entry of big techs in finance.

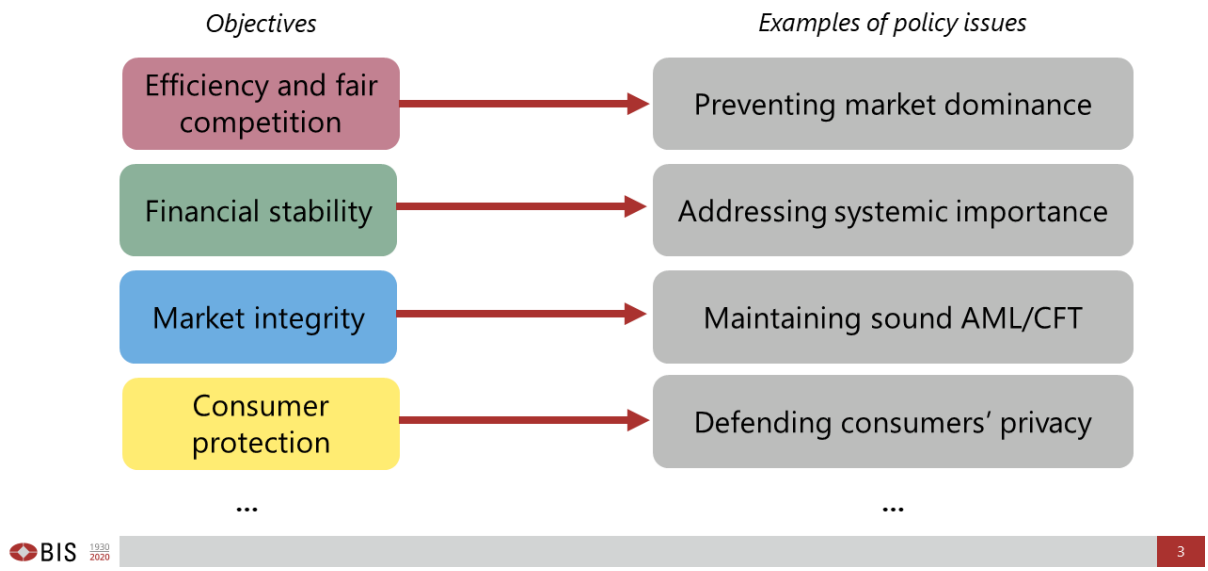
Among benefits, these features of big techs' business model can enhance efficiency and financial inclusion. For example, the use of detailed user data from other business lines may reduce the need for costly collateral for loans.

At the same time, the DNA loop entails risks for privacy and consumer protection, market contestability and, eventually, financial stability. That calls for a specific regulation for big techs, which could also help reduce distortions vis-à-vis banks.

The policy approach to big tech should centre on key public policy objectives

We know that public policy should maximise welfare. To do this, public policy typically sets some (intermediate) objectives, such as: (i) efficiency and fair competition; (ii) financial stability; (iii) market integrity; and (iv) consumer protection.

The growth of big techs is rapidly changing markets and posing challenges from the perspective of each of these public policy objectives. Let me give a few examples (Slide 3).



First, while big techs' entry into finance can initially bring greater competition, they can quickly scale up and dominate markets. They may also have conflicts of interest from their financial and non-financial business lines. Competition policy may have to adapt accordingly.

Second, and on a related note, they could quickly become systemically important – or "too big to fail". This may already be the case for the largest mobile money providers in China, and the major cloud service providers serving financial institutions.

Third, with regard to market integrity, there are challenges around anti-money laundering and combating the financing of terrorism (AML/CFT). This is particularly relevant in the light of new digital payment services, such as Facebook's Libra (now Diem) proposal.

Fourth, big techs' use of data can pose challenges to consumers. While detailed data can help reduce asymmetric information problems, there are risks to consumers when sensitive data are shared. Moreover, big techs can engage in price discrimination, making consumers worse off. Restricting the use of data may help, but could have costs for efficiency.

Overall, it is clear that big techs put policymakers in a thorny position.

Towards a new regulatory framework

Thus, authorities must consider how best to adjust the regulatory framework to address the risks posed by the operation of big techs while preserving the opportunities they create.

In the interest of time, let me elaborate on issues related to competition, namely the need to promote a level playing field with commercial banks. This is important, subject to maintaining financial stability, market integrity and other relevant policy objectives.

In the current framework, big techs must hold licences to offer specific financial services (such as payment services, wealth management and credit underwriting). That obliges big techs to satisfy rules affecting all providers of those services. Banks need, in addition, to satisfy prudential requirements (entity-

based obligations) that affect all services they provide, even if those activities are performed through non-deposit-taking subsidiaries.

The notion is, therefore, that the current framework may affect the competitive position of banks vis-à-vis the new players in the market for financial services. Any regulatory discrepancies across different players need to be justified on the basis of solid policy grounds.[1]

In that context, the banking industry (and some regulators) are promoting a move from an entity-based to a more activity-based regulatory approach.

This line of reasoning often ignores that big techs are already satisfying activity-based requirements (eg as money transmitters in the United States or e-money institutions in the EU), particularly in the areas of AML/CFT and consumer protection.

Moreover, a pure activity-based approach would allow banks to exclude certain non-deposit taking activities from the prudential regulatory perimeter. That runs against Basel core principles under which banks should satisfy prudential requirements based on all activities they perform. This would also run against actions taken after the Great Financial Crisis to enlarge the scope of banks' supervision and to further protect core from ancillary activities (the structural measures).

More importantly, the main risks that big techs generate have to do with their unique (DNA-based) business model that combines different activities (e-commerce, financial service providers, cloud computing, etc), and their large size (systemic importance). Those risks can hardly be addressed by a piecemeal activity-by-activity approach.

Therefore, the widely used slogan "same activity, same regulation" cannot constitute, by itself, the basis of the required regulatory reform. Activity-based regulations do not provide the full answer to all relevant policy challenges posed by big techs. We have to go one step further.

Indeed, there is a relatively large scope to address the risks of big techs by directly regulating them: ie developing specific entity-based rules. That approach could achieve the primary objectives of regulatory policies, but also help to mitigate competitive distortions between banks and non-banks.

The entity-based approach is gaining ground in major jurisdictions

Elements of an entity-based approach for big techs are already present in recent regulatory initiatives worldwide (Slide 4).

[1] For an analysis on how level playing field issues should be addressed in defining the financial regulatory framework following the emergence of fintechs and big techs, see F Restoy, "Fintech regulation: how to achieve a level playing field", *FSI Occasional Papers*, no 17, forthcoming.

The entity-based approach is gaining ground in major jurisdictions

- State Administration for Market Regulation (SAMR) draft guidelines on internet companies (Nov 2020)

- Draft Digital Services Act (DSA) and Digital Markets Act (DMA) (Dec 2020)

- House Subcommittee on Antitrust, Commercial, and Administrative Law report (Oct 2020)

❑ Many questions go beyond the mandate of central banks and financial regulators alone – need structured cooperation with competition and data protection authorities

In particular, a Subcommittee of the US House of Representatives published a list of recommendations to regulate big techs in October 2020. In November 2020, China's State Administration for Market Regulation (SAMR) published for consultation a set of guidelines for internet companies. Finally, the European Commission published proposals for a Digital Services Act and a Digital Markets Act in December 2020.[2]

The proposals contain specific provisions that aim at preventing data misuse and anti-competitive practices by big techs. That is a significant departure from usual practices: competition policy does not typically rely on specific rules to be satisfied ex ante by firms. It rather builds on the ex post monitoring of the application of general principles and the development of case law. The European Commission's initiatives also include provisions for risk management procedures, transparency, auditing exercises and the supervision of big techs.

A natural follow-up of those initiatives is to further study possible measures that address the potential systemic relevance of big techs and the need to introduce specific safeguards to guarantee sufficient operational resilience. That may be especially relevant for big techs offering key services (such as cloud computing) to financial institutions worldwide. That action would need to address a number of specific challenges.

At present, the notion of "systemically important financial institution" is almost exclusively applied, in practice, to traditional financial institutions like banks and insurance companies, and the notion of "systemically important financial market utility" is likewise applied to market infrastructures. In some jurisdictions, like the US, there are formal processes to designate financial institutions and financial market utilities as systemically important. These rules could be applied to specific legal entities within big tech groups that provide specific services (like cloud computing for financial institutions) if the current definitions were to be revised. However, the current framework falls short of allowing for the recognition of the potential (possibly global) systemic impact of incidents in big tech operations and of possible spillover effects to the financial sector and across all the activities big techs perform.

[2] Additional details are provided in Annex 1.

For this and other reasons, regulatory actions in this area would benefit from close coordination among different financial and non-financial regulators, at both the national and global level.

From a broader point of view, the rise of big tech has underscored how rapidly digital innovation can disrupt markets, even leading to new concerns around systemic importance. Authorities cannot be caught asleep at the wheel. We must invest in monitoring and understanding these developments, so as to be prepared to act quickly when needed. In the light of these challenges, the BIS has taken measures such as establishing the new BIS Innovation Hub and conducting research on innovation in our Monetary and Economic Department and Financial Stability Institute. Together with central banks and partners, we hope to contribute to stability and prosperity in our rapidly changing digital world.

Annex 1: Additional information on recent regulatory initiatives

In **China**, some regulatory changes have recently been introduced for internet companies. On 10 November 2020, the Chinese State Administration for Market Regulation (SAMR) published for consultation draft guidelines on how antitrust measures should be applied to internet companies (including big techs). With this publication, SAMR seeks to prevent monopolistic behaviour of internet platforms, promote fair market competition and safeguard the interest of consumers. The guidelines were proposed in accordance with China's Anti-Monopoly Law of 2008 and describe anti-competitive practices in the internet sector. Other recent changes in the regulatory environment for internet companies include draft rules for online lending which would require an internet company to fund 30% of the value of the loans it distributes (thereby limiting the funding provided by banks and other firms to 70%), and a draft law on personal data protection.

The authorities in the **United States** have recently taken actions on US big techs. The Federal Trade Commission and Department of Justice are each investigating the merger and acquisition activity of US big techs and card networks. In October 2020, the US House of Representatives' Subcommittee on Antitrust, Commercial, and Administrative Law released an antitrust report. The purpose was to "(1) document competition problems in digital markets; (2) examine whether dominant firms are engaging in anti-competitive conduct; and (3) assess whether existing anti-trust laws, competition policies, and current enforcement levels are adequate to address these issues". The Subcommittee came up with a list of recommendations to regulate big techs (Amazon, Apple, Facebook and Google) in order to help reduce anti-competitive behaviour. Some House Democrats have called on the Treasury to designate US cloud providers "systemically important financial market utilities" under the Dodd-Frank Act; the Financial Stability Oversight Council (FSOC) can designate institutions as systemically important. It is likely that the Biden administration and Democrat-controlled Congress will be more aggressive on antitrust regulation of big techs.

Finally, the **European Commission** has been quite active on competition issues, taking multiple antitrust actions against US big techs in the last few years, reacting on an ex post basis to competitive infringements. On 15 December 2020, the Commission published drafts of the Digital Services Act (DSA) and Digital Markets Act (DMA), which would create ex ante rules to constrain big techs' activity. The DSA would define illegal goods, services and content, abuse of platforms, advertising and transparency of algorithms. The DMA defines a new category of "gatekeeper" platforms, and prohibits conflicts of interest such as favouring big techs' own products or stopping users from uninstalling pre-installed software. Discussions are under way about adjustments to the Second Payment Services Directive (PSD 2) and General Data Protection Regulation (GDPR) to ensure a level playing field in data exchange between banks and big techs.