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BIGTECHS AND FINANCIAL SERVICES: SOME CHALLENGES, BENEFITS AND REGULATORY RESPONSES

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ABSTRACT

The pandemic has speeded up the digital transformation of Spanish society. Cloud computing, data analytics and remote interactions have become even more essential, forming the basis for a new industrial and commercial reality in which large technology companies (BigTechs) are at an advantage. Against this background, financial services are increasingly attracting the attention of these market players; they allow them to diversify their income and offer them channels to boost their main activity. BigTechs are gradually gaining ground in the financial arena, becoming more prominent in the most profitable segments and strengthening their position as the providers of essential services for banks. In response to this challenge, financial authorities are building a new regulatory and supervisory framework for financial platforms. Although still in its early stages, the specific character of this framework is beginning to become clear. In combination with other cross-sectoral frameworks (e.g. for competition), it will discipline the behaviour of these agents in the financial sector. This article analyses the current situation of BigTechs in the financial industry, as well as the most important legislative initiatives taking shape in the European Union in this area.

Keywords: BigTech, digital platforms, financial stability, consumer protection, competition, gatekeepers, regulation.

JEL classification: E44, F49, G21, G38, L13, L22, L41, O33.

BIGTECHS AND FINANCIAL SERVICES: SOME CHALLENGES, BENEFITS AND REGULATORY RESPONSES

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Introduction

The financial services industry, like other sectors previously, is becoming increasingly attractive to large technology companies. Their impact is still very uneven, but the importance of economies of scale and scope, as well as the speed with which these platforms can incorporate financial services, augurs a changing reality (Stulz, 2019; European Commission, 2020a). This process has accelerated notably during the pandemic: the profile of BigTechs has been increasing – in line with the growth in the number of digital customers – as has their reputation as financial solution providers, which is demonstrated by the success of their programmes to assist the firms hardest hit by this crisis.[2] BigTechs are thus positioning themselves as potential main gateways to financial services, obliging the relevant authorities to review the adequacy of the mechanisms currently available to them to be able to honour their mandates. On the basis of this hypothesis, this article analyses the situation of BigTechs in finance, points out the benefits and risks associated with their presence that most concern regulators and concludes by outlining some of the European initiatives that seek to address these challenges.

A moving snapshot: the financial footprint of BigTechs

Whether because of the significant scale of the financial industry or the size of the banks' share, the overall impact of these new market players admittedly still appears to be moderate. However, there are notable exceptions at the level of specific activities and also in geographical terms. For example, their growth in emerging countries – both in terms of volume and product diversity – far exceeds that seen in industrialised economies (FSB, 2020). This illustrates, in turn, how these firms appear to revolve around two clearly differentiated groups: those that operate globally from

1 The author wishes to thank Juan Ayuso, Carlos Conesa, José Manuel Marqués and Ana Fernández for their comments.

2 The Big Five have granted direct financial assistance to SMEs, in the form of cash grants and ad credits, amounting to a total of $681.5 million. There are plans to extend this support for those companies hardest hit by the crisis by granting soft loans. Also, many BigTechs have played a decisive role in ensuring the rapid distribution of government assistance to the most disadvantaged sectors of society, particularly in developing countries.

the United States, and Asian firms that operate mainly in their domestic markets and, possibly, in their immediate sphere of influence.

The first of these groups is characterised by the search for alliances with financial institutions, providing them with complementary channels for the distribution and promotion of their respective portfolios (principally, marketplaces[3]).[4] In contrast, the second group targets the space of the incumbents and challenges their leadership in specific segments.[5] These differences stem from various factors, such as the maturity of the financial sector, the strength of the local regulatory and supervisory framework and the importance of net interest income (Claessens et al., 2018).

In both cases the interest of BigTechs in providing these services is based on: (i) the possibility of diversifying their revenue streams; (ii) the opportunity to reduce frictions in the user experience (and boost their primary business);[6] and (iii) the potential for maximising the customer journey by enhancing overall knowledge of customers' actual financial capacity (FSB, 2019a). Financial services are thus ancillary to the main business and, as such, follow a more or less uniform roadmap that starts with payments and (micro)credit and relegates to later stages insurance[7] and savings products (see Table 1). Of the latter, money market funds are the most common ones, as opposed to higher risk and more profitable assets.[8]

Without prejudice to their direct involvement in financial services, BigTechs are also critical providers of technology and offer financial institutions key tools to ensure their future viability. Although their principle line of business is in cloud computing, their contribution to data analytics (e.g. big data and artificial intelligence) and communications is equally relevant.[9]

In view of the complexity of the relationships described, it is not easy for the financial authorities to find an appropriate response to the challenges posed by BigTechs: apart from considering the risks inherent in each of their activities, the authorities must first decipher the characteristics of their respective business models and organisation. Financial regulators and supervisors must also familiarise themselves

3 Under this business model BigTechs offer virtual infrastructure or platforms that serve as a meeting point for suppliers and consumers of a broad range of products and services, including financial ones.

4 For example, according to a study by KPMG (2019), 26 % of the banks surveyed reported that they were collaborating with at least one BigTech, and a further 27 % envisaged doing so within a year.

5 In 2019, the two main Chinese BigTechs managed 94 % of mobile payments in China. The total value of the transactions processed by non-bank operators amounted to 230 % of GDP (Frost et al., 2019).

6 Internet search services, online advertising, social media, e-commerce, etc.

7 Given its enormous growth potential, health insurance is one of the last battlefronts. In this respect, BigTechs have successfully entered the field of mutual occupational accident and disease insurers, supplying products online at accessible prices. Their market share in China is 7 % (Ant Group, 2020).

8 Chui (2021) argues that BigTechs protect themselves in this way from the risk of losing customers globally in the event that these products do not perform well.

9 In any event, there is a certain degree of specialisation among BigTechs, so that not all of them have a presence in the market for technology services, or in all corners of the market, at the same time.

Table 1
TYPES OF FINANCIAL SERVICES PROVIDED BY LEADING BIGTECHS

BigTech	Core activity	Banking services (a)	Lending	Payment services	Crowdfunding	Asset management	Insurance
Google	Internet search / advertising	√ (b)		√			
Apple	Hardware and technology components			√			
Facebook	Social media / advertising			√			
Amazon	e-commerce		√	√	√		√
Alibaba (Ant Group)	e-commerce	√	√	√	√	√	√
Baidu (Du Xiaoman)	Internet search / advertising	√	√	√	√	√	√
JD.com (JD Digits)	e-commerce	√	√	√	√	√	√
Tencent	Technology, online games, messaging	√	√	√	√	√	√
NTT DoCoMo	Mobile communications	√	√	√	√		
Rakuten	e-commerce	√		√		√	√
Mercado Libre	e-commerce		√	√		√	

SOURCE: Crisanto, Ehrentraud and Fabian (2021).
Note: √ Financial services provided directly through the BigTech or in partnership with a traditional financial institution outside the BigTech group and in at least one jurisdiction.

a The core activity of a firm with a banking licence is taking deposits, although regulations may vary across countries.
b Launch expected in 2021.

with the impact that other more general rules, specific to BigTechs' technology business, could have on how financial services are provided. It is, therefore, an arduous – but essential – process to ascertain the role played by each firm and activity in the financial services value chain, and the nature and magnitude of their effects on the financial sector, the interdependencies between subsidiaries and the different value propositions of the technology groups.[10]

10 Moenjak and Santiprabhob (2021) take the example of Alipay and Yu'e Bao to illustrate this point. Despite being formally separate activities pursued by different subsidiaries, in operational terms they are connected. This increases the appeal of certain types of financial products, as functionally they include characteristics of others without being subject to the mandatory licence. For example, an investment product that offers real-time liquidity with no loss of value, making it similar, in practice, to a redeemable deposit.

The financial authorities are aware of the complexity of the resulting map and increasingly agree on the need to reconcile activity-based and entity-based regulations (Restoy, 2021; Adrian, 2021). But they also recognise the need to identify and harness the possible synergies with the sector-specific regulations for these new market players, and also with emerging legislation tailored to the digital economy in areas such as privacy, the use of algorithms or digital identity.

Main focal points for the financial authorities

In the exercise of their functions, central banks and other similar sector regulators are assigned a set of public policy objectives, for instance, relating to the maintenance of financial stability and consumer protection. The emergence of BigTechs poses new practical challenges for the achievement of these goals, making it necessary to assess not only the possible effects of the behaviour of BigTechs, but also the extent to which the resulting public measures might compromise the aims of other authorities and vice versa. Below we explore these aspects from the standpoint of the specific interests of financial authorities and address competition aspects that are particularly relevant to them.

As platforms, BigTechs can help expand the supply of products and services, reduce search costs and correct data asymmetries. In addition, as direct competitors of banks, they can use technology to provide services more efficiently, driving down the cost of financial intermediation[11] and encouraging innovation as a factor of differentiation. This increased level of contestability of the financial services market may, in theory, prompt greater diversification – in terms of the number and nature – of financial service providers in the short and medium term, thus reducing the share of traditional agents among institutions that are too big to fail.

BigTechs can also favour financial inclusion. They offer payment solutions and provide mechanisms to save that do not require users to hold a current account. They also provide financing to users who have no credit history or collateral (Barruetabeña, 2020). This increasing integration into the formal system protects the population and breeds confidence, acting as a stabilising factor.

Likewise, BigTechs can help contain operational risks, supporting banks in their modernisation, granting them access to advanced solutions and technologies and providing them with assistance and specialist advice in their migration processes. Two objectives are thus achieved: increased financial sector resilience and broader access to scaled-up digital resources and infrastructures (FSB, 2019b).

11 This cost is virtually identical for the United States (Philippon, 2014) and Europe (Bazot, 2014).

However, the presence of BigTechs can entail conduct risks, related to transparency, insider information or mis-selling. For instance, anti-competitive behaviour or the existence of regulatory arbitrage opportunities that compromise customers' ability to make informed decisions or to protect themselves from abuse. As gatekeepers, platforms regulate the range and characteristics of the products and services they offer, and also the breakdown and quality of the information they provide. Accordingly, they influence the breadth of supply and any critical analysis of its implications.

BigTechs can also take advantage of the uncertainty as to whether or not a particular activity lies within the regulatory perimeter and can, therefore, create artificial stimuli (cross-subsidies or linked products)[12] that nudge users in a certain direction. This lack of definition also means that the roles and responsibilities of the parties involved are blurred, weakening the quality of after-sale service.[13] In addition, the potential consolidation of BigTechs as a main gateway to financial services may harm non-digitalised groups.[14]

BigTechs also influence how supply evolves, as they control the technical and/or commercial conditions under which service providers may use their infrastructures. A good example of this are the restrictions placed by some manufacturers on access to NFC antennas,[15] which prevent banks from natively integrating their own products onto such hardware. Moreover, BigTechs' activities have well-documented implications at both the microprudential and the macroprudential level, for example: (i) market concentration[16] (van Dijck, Nieborg and Poell, 2019); (ii) erosion of the solvency of traditional financial service providers (Vučinić, 2020); (iii) distortion of credit[17] (CGFS and FSB, 2017; Carstens, 2018); (iv) amplification of financial risks[18] (De la Mano and Padilla, 2018); (v) emergence of new types of interdependencies (EBA, 2019); and (vi) weakening of traditional payment circuits (Carstens, 2020). These problems frequently overlap and take on a systemic dimension and complexity that demand early public intervention (Eickstädt and Horsch, 2021).

12 Including sophisticated practices such as gamification (see Jain et al., 2020).

13 For example, in the case of fraud, users may have to resort to the last service provider, with which they have no direct relationship and which may, in addition, only be reachable through channels not connected to the platform used to acquire the product or service concerned. This is even more complicated if the service provider is located in a different jurisdiction.

14 Nevertheless, there is awareness of this risk and there are many proposals precisely designed to meet the practical needs of population groups with poorer digital skills. One practical example is the development of mobile apps that have a simplified search menu, designed for the elderly (i.e. with only the most common options, such as checking balances or ordering transfers), and the use of larger font sizes.

15 Near-field-communication (NFC) is a technology present in mobile telephones that enables short-range, high-frequency wireless connectivity to facilitate data exchange.

16 Largely the result of network economies.

17 Very limited to date, given the low relative importance of this channel, with the notable exception of certain market niches in countries such as China.

18 For example, adverse selection or moral hazard.

Key activities in the European Union

In the face of the broad range of challenges posed by BigTechs' financial activity, the regulatory response has been widespread and varied. In Europe, the Commission's digital finance package (European Commission, 2020b) stands out, laying the foundations for an ambitious reform of the existing control framework to ensure that it is fit for the digital age.

The ultimate goal of this package is that both regulation and supervision transition towards a new financial ecosystem by end-2024. For this purpose, it includes reviewing the present perimeter[19] and strengthening suptech tools. It also envisages the creation of a number of supervisory colleges to encourage cross-sector cooperation. And, through specific training activities, it aims to improve authorities' technical skills.

This strategy is accompanied by several regulatory proposals targeting specific issues, which in turn are linked to different microprudential, macroprudential and conduct objectives. The Commission aims to strengthen the banking industry's operational resilience, promoting more robust management of technology risks and, in particular, of those arising from dependence on critical third-party service providers. For this purpose, it seeks to harmonise key elements of the content and provision of these services, submit their main providers to a common supervisory framework and launch a European cloud services marketplace to foster greater competition in this space.

Crypto-assets are another critical focal point, with a set of rules that turn their issuance and related services into a reserved activity.[20] This approach seeks to boost the development of these markets, applying conditions similar to those already in place for financial institutions, yet adapted to the specificities of this business and designed, in particular, to mitigate the impact of stablecoins on financial stability and monetary policy and sovereignty.[21]

The third pillar of this strategy is the Digital Markets Act (DMA),[22] which targets BigTechs classified as gatekeepers. Insofar as it imposes and prohibits certain

19 This includes reassessing supervisory arrangements for consolidated groups and financial conglomerates, and possibly adapting the prudential rules on intangible assets. It also entails reinterpreting the Directive on distance marketing of consumer financial services, or considering legislation regulating large-scale lending by these agents. By comparison, the US deposit guarantee scheme already has regulations that allow industrial loan companies to pursue this activity without demanding that they satisfy other banking requirements, such as capital requirements.

20 In this respect, the proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets (MiCA), and amending Directive (EU) 2019/1937, stands out.

21 Specific requirements have been formulated for each of the functions included in their ecosystem. For example, restrictions are imposed on the composition, management and safekeeping of the reserve asset.

22 Some of the key questions addressed in this legislative proposal coincide with the core themes of the draft bills submitted to the US Congress following the work of the investigative committees into Amazon, Apple, Google

conduct in favour of competition, it touches on the concerns of the financial sector in several ways. For instance, as it bars exclusivity clauses or recognises a widespread right of access to essential IT infrastructures, it prevents the concentration of supply. Another important aspect it addresses are the dysfunctionalities deriving from data intermediation. However, in this respect, the DMA moves away from more ambitious approaches, such as those included in the European Data Strategy,[23] to concentrate on aspects such as portability and access to data generated and prevention of discrimination in rankings.

Lastly, and although this is less important for the financial sector, the Digital Services Act helps mitigate reputational risk, by establishing mechanisms that facilitate reporting and management of illicit content or introducing formulae that reduce BigTechs' margin of discretion to limit access to or visualisation of the products and services they distribute.

Conclusions

The emergence of BigTechs constitutes a greater incentive than that provided by fintechs for a definitive and potentially disruptive transformation of the financial system. There are undeniable benefits, and equally significant potential drawbacks, to their becoming consolidated market players. As a result, the challenge for financial authorities is to identify BigTechs' strengths and determine how they use them to compete in the banking sphere. Accordingly, financial authorities must be ready to encourage behaviour that benefits society, and to react to the shortcomings, problems and new challenges that BigTechs' activities may pose.

The European Commission's package is a valuable starting point for this purpose, but its broad focus means that many questions remain open for financial regulators. These questions will have to be settled as part of an international dialogue and with the participation of authorities from different areas, to fill the present legal vacuum, bring the conflicts of competence to an end and address, with sufficient ambition, the fundamental dysfunctionalities that BigTechs entail, such as those deriving from data silos.

In this respect, the financial authorities' view of how a highly digitalised financial sector should be governed has developed considerably in recent years and a clear consensus has built up around two core ideas. First, that BigTechs' foray into the financial arena means that it is imperative to harness the synergies across the different sector-specific regulations. Second, that insofar as the financial arena

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and Facebook. The aspects to be covered include how to prevent the manipulation of distribution platforms to favour own supply and encourage personal data portability between social networks.

23 For instance, although it grants business users a right of access to, and effective use of, certain data intermediated by the digital platform, it does not address the question of technical interoperability.

strictly speaking is concerned, any possible proposal must necessarily square the requirements imposed due to the nature of the specific activity with those that consider the inherent characteristics of the service providers (i.e. activity-based and entity-based regulations). In both cases, this is a path which has been barely trodden to date and which it is hoped will yield tangible results in the medium term.

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