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Articles

DATA PORTABILITY: LESSONS FROM OTHER SECTORAL EXPERIENCES*

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ABSTRACT: Given the recent enactment of the Brazilian General Personal Data Protection Law (LGPD), which includes the right to personal data portability, this paper investigates previous regulatory and legal instruments regulating portability rights in Brazil. The experiences found in healthcare, telecommunications, and financial services provide relevant insights and possible challenges for the implementation of personal data portability and its outreach as a legal remedy to promote competition in data driven markets.

KEYWORDS: data portability; number portability; probationary period portability; credit portability.

CLASSIFICAÇÃO JEL: K21; K23; K24.

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PORTABILIDADE DE DADOS: LIÇÕES DE OUTRAS EXPERIÊNCIAS SETORIAIS

RESUMO: No contexto da recente entrada em vigor da Lei Geral de Proteção de Dados (LGPD), que inclui a previsão de um direito à portabilidade de dados pessoais, o artigo investiga instrumentos legais e regulatórios já empregados para regulamentar direitos de portabilidade no Brasil. As experiências dos setores de saúde suplementar, de telecomunicações e de serviços financeiros trazem importantes elementos e possíveis desafios que potencialmente estarão envolvidos na implementação do direito de portabilidade de dados pessoais e possivelmente afetarão o alcance dessa solução como indutor de concorrência em mercados da economia de dados.

PALAVRAS CHAVES: portabilidade de dados; portabilidade numérica; portabilidade de carência; portabilidade bancária.

INTRODUCTION: DATA PORTABILITY – BETWEEN PERSONAL DATA PROTECTION, CONSUMER PROTECTION AND COMPETITION LAW

The right to data portability is at the heart of the intersecting debate on data protection and competition and has gained special attention following the first developments in the enforcement of Europe's General Data Protection Regulation (GDPR) and similar initiatives such as the California Privacy Act and legislation enacted in Brazil, Australia, and Singapore, among others. Data portability was first established as a right by the GDPR in 2012, aiming to ensure individuals control over their personal data (ZANFIR, 2012, p. 152).

Conversely, competition scholars have consistently prompted portability as a crucial means of promoting entry, reducing switching costs, and fostering innovation. According to a general understanding, digital markets have strong network effects, that is, the convenience of using a given platform expands as the number of users increases (CRÉMER; MONTJOYE; SCHWEITZER, 2019, p. 2). More specifically, the OECD describes data-driven network effects as the idea that the more users, the more data is collected and the more personalized the platform—attracting more users and more advertising revenue (OECD, 2016, p. 10).

While data portability was envisioned by data protection regulation to promote individual rights, it also plays a key role in fostering competition in digital markets, especially by promoting entry into highly concentrated and hardly contested markets.[1] Data portability prevents "data lock-in" by allowing users to switch between data services (CRÉMER; MONTJOYE; SCHWEITZER, 2019, p. 81). Hence, portability can be widely understood as an *ex-ante* intervention that reduces switching costs, thus promoting competition.

Moreover, we find competing economic literature on data portability. Wohlfarth, for example, developed a game-theoretical model showing that the right to data portability can negatively influence the amount of data collected by data-intensive companies. Considering that entrants could potentially rely on data portability for new services, they would collect all available data categories by means of portability, while in other scenarios they would design new products requiring few data categories (2019). This would potentially decrease consumer surplus by encouraging companies to collect more personal data, contrary to the data protection principle of minimization.

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[1] For example, reports by the OECD (2016), European Commission (CRÉMER, MONTJOYE; SCHWEITZER, 2019), and a Digital Competition Expert Panel from the UK (DIGITAL COMPETITION EXPERT PANEL, 2019) all agree on this point.

In fact, one notorious criticism of the right to data portability refers to its potential to create high compliance costs for entrants, likely reducing consumer welfare once companies passed such costs to consumers (SWIRE; LAGOS, 2012). As such, "if the costs to implement data portability are not too large, on the one hand, data portability fosters market entry, which arguably enhances service variety and innovation, but on the other hand, incumbent services unambiguously suffer from data portability" (WOHLFARTH, 2019).

To date, however, research on the implications of data portability from an economic perspective are scarce (KRAEMER, 2021; KRÄMER; SENELLART; STREEL, 2020). As indicated above, this is a novel right and thus little data was produced about the practical and effective results of its implementation and enforcement.

Partially to address such gap, the European Commission drafted an evaluation and review report on the application of the GDPR, to be delivered to the European Parliament and the Council of the European Union in 2020 (FRA, 2020). Among other aspects, the report indicated that the right to personal data portability yet to reach its full potential. Experts pointed out that this would result from the lack of data standardization and the need to develop API and other tools geared towards promoting online data portability (KRÄMER; SENELLART; STREEL, 2020).

Despite the current heated debate, portability is not a novel regulatory solution and has been widely employed across sectors worldwide. In Brazil, it is no different – healthcare, telecommunications, and financial services are examples of sectoral initiatives with apparent success. The recent enactment of the Brazilian General Personal Data Protection Law (*Lei Geral de Proteção de Dados* – LGPD) established the right to data portability, which is applicable to all agents developing activities involving the processing of personal data, regardless of sector or industry.

Overall, some relevant challenges are needed for data processing agents to implement the right to data portability. As currently provided in Article 18 of the LGPD, data subjects have the right to expressly request portability of their data to another service or product provider and data processing agents have a duty to comply with this request (unless there are legal or factual obstacles). Article 18 also indicates that portability must occur according to regulation by the National Data Protection Authority (*Agência Nacional de Proteção de Dados* – ANPD) and respect intellectual property (trade secret). Moreover, the Article states that no costs shall befall the data subject for requesting portability and that anonymized data is not considered portable.

Besides the technical difficulties that may arise with data transfer, the general understanding is that the LGPD has left multiple questions open, with immediate

reflections on the regulation of data portability.[2] As such, the LGPD expressly recognizes that portability should be further regulated by the ANPD,[3] especially regarding minimum standards of interoperability, data security, minimum data storage periods and access in general (Article 40). These concerns are among those highlighted as priorities by the Brazilian data protection regulator, primarily because portability can act as a "facilitator of digital trust, competition, and economic growth, especially for small and medium-sized companies" (CEDIS; CIPL, 2020).

Potential shortcomings of the LGPD have also been highlighted by private actors such as Facebook. The social networking service submitted a White Paper with relevant contributions, including the very need to define data portability, which and whose data should be portable, the need to clarify how to protect privacy while enabling portability, and to define the actors responsible for misuse or improper protection of data once it is transferred (EGAN, 2019).[4]

In search of potential answers to bridge these gaps, we turned to previous legal and/or regulatory instruments drafted in Brazil to promote portability.

This paper investigates the key elements for portability implementation in healthcare, financial services, and telecommunications in Brazil, to collect relevant information to the debate on data portability. More specifically, we analyzed the National Agency of Supplementary Healthcare (*Agência Nacional de Saúde Suplementar* – ANS) regulation on portability of probationary periods for healthcare plans, the Central Bank of Brazil's (*Banco Central do Brasil* – BCB) regulation on portability of financial services, and the National Telecommunications Agency's (*Agência Nacional de Telecomunicações* – ANATEL) regulation on number portability.

Our findings show that most of the pre-existing regulation on portability in Brazil revolves around sector-specific directives that provide the right to switch between service providers, and general consumer right protection when services have not been performed properly, allowing data transfer under very limited circumstances. Despite its seemingly limited scope, we find that Brazil's previous experiences with portability regulation may be useful in guiding and structuring the debate after the recent enactment of the LGDP.

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[2] Some of these interpretation questions are described in Ponce (2020).

[3] On August 27, 2020, the Brazilian Presidency published Decree 10.474/2020 in the Official Gazette, approving the regulatory structure of the NDPA and establishing its roles. The decree only entered into force on November 6, 2020, when the NDPA President-Director was officially appointed via publication in the Official Gazette.

[4] Looking at the European experience, the Working Group n. 29 has published guidelines on the right to data portability in the GDPR, assessing some of these issues (UE, 2016).

Using case studies, we assessed factors such as, i) the regulatory and/or legal instrument involved in providing portability, ii) how technical aspects were addressed (e.g., as obstacles); iii) the agents involved in the debate; iv) the role played by data sharing in enabling portability; v) the types of data subject to portability; vi) the period required to provide (early) portability completion across sectors; and vii) the general rules and limitations on the consumer's right to portability.

We find these results to be particularly useful, given that the LGPD expressly indicates that data privacy regulation shall be executed in cooperation with multiple authorities, portability implementation will not be an exclusive pursuit of the ANPD.[5] Given the transversal aspect of the LGDP, as well as its potential interface with the competition policy and regulatory debate, our assessment can yield competition policy insights for data-driven markets.

1. PORTABILITY IN BRAZIL: WHAT HAVE WE SEEN SO FAR?

1.1 HEALTHCARE

In Brazil, healthcare services are provided by a hybrid system: universal public access and the so-called complementary private insurance system, which comprises public and private providers. Portability in healthcare was first introduced by Law no. 9,656/1998 — which established the provision of healthcare plans in Brazil — and formally regulated in 2009, after issuance of Resolution no. 186 by the National Agency of Supplementary Health (ANS).

Portability in healthcare services focused on the hiring of private health insurance plans, by regulating the portability of "grace periods" when switching healthcare providers.[6] Promotion of competition is, in fact, an underlying rationale for the portability of probationary periods in healthcare and insurance plans. This stems from the general understanding that, in the healthcare and insurance market, switching costs for consumers entail the loss of certain rights acquired during the contracting period, such as probationary

[5] In recognition of this provision, the ANPD signed a technical cooperation agreement with the Brazilian competition authority (CADE), in which it indicates that both authorities shall cooperate to conduct studies on data portability as a tool to promote free competition (BRASIL, 2021).

[6] The Resolution also included regulations on the so-called "Special Portability," which targeted consumers of bankrupt or liquidated operators, as well as cases involving dismissals, death of the contract-holder, and loss of the "dependent" status. Such consumers have assistance and coverage guaranteed by similar healthcare plans. We will not delve into this category of portability, since it is usually motivated by extra-ordinary events, rather than a "purer" consumer choice.

periods and special adjustments derived from the duration of the contract between the consumer and the carrier.

The explanatory memorandum that preceded ANS Resolution no. 186 of 2009 explicitly states that, despite its importance to mitigate information asymmetry in risky markets such as health insurance, "the absence of a portability mechanism makes the market less dynamic, ultimately inhibiting competition in the sector, generating a form of ex-post monopoly" (ANS, 2008). More importantly, grace periods mitigate the risk that consumers will only seek healthcare assistance in case of actual need, to the detriment of calculating the risks that are essential for insurance coverage. The portability of grace periods aims to preserve such benefits without withholding competition, locking in consumers and creating irrational transactional and switching costs. Such competitive effects were essentially created and enhanced by the existence of transaction costs related to the fulfillment of a new probationary period when the beneficiary would switch health plan carriers.

A distinctive feature of portability, as regulated by the ANS, is that it does not require the actual transfer of consumer data between healthcare providers: users are expected to terminate their current health insurance plans and provide evidence before the new operator that they are eligible for portability, that is, continuity of their probationary periods. The most relevant challenge set by the original regime was related to the need to request portability to a plan *compatible* in geographic coverage, price, and type of plan (i.e., individual, family, etc.). Such compatibility features were at the heart of a revision to Resolution no. 186 proposed by the ANS in 2011. Among the diagnosis presented by a Technical Chamber at ANS created to discuss the topic, there were concerns about possible low rates of regular portability, but somewhat high levels of circumstantial peeks, especially related to Special and Extraordinary Portability cases (ANS, 2010). As such, ANS identified that the current state of regulation was creating difficulties for consumers to enjoy the right to portability, as indicated in the ANS' presentation at the 1st Meeting of the Product Structure Regulation Committee (ANS, 2017b).

In 2014, in line with formal ANS regulatory guidelines to increase competition among healthcare providers, the agency established a Working Group on Portability. The group met several times in 2014 and 2015 before submitting a proposal to review Resolution no. 186 to the ANS Boards. Following further studies, which included a Regulatory Impact Analysis, a Seminar on Product Structuring held by the agency in late 2016, and meetings by agency committees[7] through early 2017, the ANS submitted

[7] The Product Structure Regulation Committee included both ANS and industry (companies and associations) representatives.

a new regulation to public consultation. A total of 417 agents provided input to the public consultation, including 252 healthcare providers, 91 industry associations and representative entities, and 55 consumer protection organizations. Operational aspects were the most recurrent concern presented by contributors, including the format of the portability request, the expected period for operators to formally accept or deny portability, the validation of portability by the execution of a new contract between consumers and operators. The ANS addressed the contributions and indicated which were included in the updated regulation, as detailed in the Report on the Public Consultation (ANS, 2017c).

In 2017, the ANS once again reviewed the portability regulation. Between August and September of that year, the agency made Public Consultation no. 63/2017 available to address certain vulnerabilities identified in the current portability framework. Prior to launching the public consultation, the ANS Product Structure Regulation Committee held three meetings with industry stakeholders. Their summary (ANS, 2017a) indicates that some of the sensitive issues regarding the subject involved the time window available for consumers to exercise their portability rights (limited to a four-month period), the mandatory compatibility between healthcare plans, since an specific line of plans (those without hospital and ob-gyn coverage) was rarely available; as well as the need to expand portability rights to beneficiaries of company group plans, which comprised almost 70% of all plans (ANS, 2017b).

The discussion was therefore focused on making portability more accessible, either formally or concretely. Most contributions from private actors understood the need to balance such expansion of accessibility with mitigating moral hazard and ensuring risk allocation and industry mutuality. As such, we identified that stakeholders were concerned that portability would stand on flexible grounds of compatibility among the different plans available. Stakeholders were also presented with possible solutions for the issue of compatibility, including rules restricting an extended probationary period for upgraded benefits not originally available and promoting price compatibility (ANS, 2017a).

Resolution no. 438 was approved in December 2018 and came into force in June 2019, providing new rules for portability in health insurance services. More importantly, the Resolution expanded portability rights to consumers that had collective/company plans, provided a more thorough regulation involving dental plans and plans subjected to the so-called special portability regime. We identified that, following the new rules, complaints related to portability of probationary periods represented just over 1% of the formal complaints addressed to the ANS related to healthcare plans — according to the ANS index of complaints (ANS, 2020b).

Despite the long experience followed by recent adjustments in portability regulation in the Brazilian healthcare industry, our study shows that the specificities of the sector pose great challenges to identifying key commonalities with the yet be regulated right

to data portability, since the debates held are only indirectly related to personal data portability. But the ANS experience shows the difficult task involved in reconciling portability of any sort and a pre-existing regulatory framework that may also involve, as is the case in the healthcare sector, prudential matters, risk allocation, and market security. In healthcare, the evolution of portability regulation over the years indicates a clear conflict between expanding the coverage of the portability right, both to protect the rights of a greater number of consumers and thus to foster competition more efficiently, and maintaining the economic sustainability of health insurers.

1.2 FINANCIAL SERVICES AND CREDIT

Portability in the Brazilian financial sector is threefold: salary portability, credit portability and personal data portability. The latter was first provided by Resolution no. 2,835 of the Central Bank of Brazil (BCB), in 2001. Salary portability followed, in 2006 (Resolution no. 3,402), and credit portability, despite formal provisions since 2006, was effectively introduced in 2013, by Resolution no. 4,292.

Portability in the financial industry emerged, with the introduction in May 2001 of a rule according to which financial institutions were required to provide their clients with their registration data upon request within 15 days. Such information included name, name of the parents, nationality, birthdate, gender, marital status, and spouse's name, profession, identification number and CPF number. Besides client identification, financial institutions were required to provide the average account balance, the record of loans, financing operations and leases before the bank, including maturity and amount, as well as the monthly average regarding other investments and financial assets. The Resolution also indicated that such information *could* be provided to third parties with the client's prior authorization.

In 2006, BCB changed the portability regulation by publishing Resolutions no. 3,401 and 3,402. The former altered the wording on Resolution 2,835 of 2011, replacing the word "might" with "must" in the provision, indicating that, upon prior client authorization, financial institutions must furnish information to third parties. This subtle change is said to be the basis for credit and salary portability.

Resolution no. 3,402 required financial institutions to promote, free of charge, credit portability between salary accounts and other accounts belonging to the same individual, a process popularly known as salary portability. In practical terms, this meant that a company could choose to deposit all employees' salaries in accounts at a financial institution of its choice, and, without charge, individuals could choose to have the sum automatically transferred to a personal account at another institution.

In 2018, CMN issued Resolution no. 4,639 and the BCB proposed a Circular indicating adjustments to information flow procedures that were necessary to provide salary portability. As reported by the BCB, the measure intended to improve consumer experience and increase competition in the sector. More importantly, the BCB suggested that besides the financial institution originally responsible for the salary deposit, the financial institution chosen by the consumer should be able to receive portability requests as well. Issues related to authentication of identity and information provided have been addressed by the BCB, establishing a minimum content that must be included in the portability requirement, as well as obliging institutions to structure an electronic communication channel between the salary bank and the credit bank. The latter was especially necessary to ensure the identification of the beneficiary of salary portability, to guarantee the security of the procedure and the allocation of operational risks between institutions (BCB, 2018).

Credit portability, that is, the possibility of transferring financial transactions from one lending institution to another, was only effectively introduced in Brazil in May 2014, when Resolution 4,292 of 2013 came into force. According to the BCB, from 2006 (after enactment of Resolution no. 3,401) until 2012, credit portability was virtually unknown to most consumers. But between 2012 and 2013, there was a considerable growth in portability requirements, associated with the fall in interest rates of public banks and the Law 12703/2012 that provides for real estate credit portability, which led the BCB to review its regulation. According to the new wording of the portability regulation, which departed from the previous regulation, all transactions and information exchanges should be made electronically, between financial institutions (without indicating the specifics of such procedure). Credit portability was the most complex among the three modalities of portability, as it involves not only the transfer of data, but also the request for an early liquidation of the transaction before one institution, and the execution of a new one, exempting the costs and taxes of such a transfer. As was the case with the portability of personal information and salary, credit portability allowed for information exchange between financial institutions, which ultimately could improve credit scores and the overall supply of financial services (RODRIGUES, 2017, p. 22).

According to the BCB, 2017 had a total of 2.1 million requests for credit portability, which represented a 93.7% increase compared to 2016 (BCB, 2017, p. 32). In 2018, this number grew 62.7% reaching 3.62 million requests, which represented BRL27.7 billion in transactions. The BCB reported that approximately half of these requests were effectively executed and about one-third of the transactions led to renegotiations before the original institution or were discontinued due to data incompatibility — the remaining were canceled or withdrawn by consumers (BCB, 2017, p. 33).

Studies argue that credit portability has had a positive effect in reducing spreads and fees applicable to individual clients compared to corporate clients, who were not covered by Resolution 4,292 and did not enjoy credit portability.[8] The sustainability of such a move over time, however, is quite controversial, as some suggest that it could lead to "rate wars" between banks and ultimately result in instability for the credit system (ALMEIDA, 2015, p. 64).

Portability of financial services was also pointed as a valid means to encourage consumers to contract with a wider range of financial institutions, increasing their bargaining power and improving the conditions to choose an institution more suitable to their preferences, denoting an important feature of BCB's policy to promote a competitive environment in the sector (BCB, 2017, p. 122). As with the health insurance sector, financial services are heavily regulated in Brazil, and client data portability can have substantial effects in risk allocation and prudential regulation, because the promotion of competition between financial institutions that could result from portability rights is necessarily accompanied by the need to ensure stability in the financial sector.

Experiences with the regulation of portability in financial services will, on the other hand, be useful as the BCB begins to introduce the implementation of open banking in Brazil. Open banking is a specific issue and is garnering much debate worldwide. For the purposes of this paper, we briefly present the proposed framework for implementation in Brazil.

In April 2019, the BCB published a set of guidelines (Notice no. 33,455/2019) that will serve as the framework for open banking regulation, with implementation during 2020 and 2021, as regulated by Joint Resolution no. 1 of May 1, 2020, by the BCB and the National Monetary Council and by BCB Circular no. 4.015 from May 4, 2020. The BCB defined the initiative as the sharing of data, products and services by financial institutions and other authorized institutions, at the discretion of their clients, by opening and integrating information systems platforms and infrastructures in a secure, agile and convenient manner. According to the Notice, open banking can increase efficiency in the credit and payments market in Brazil, promoting a more inclusive and competitive business environment, while preserving the safety of the financial system and consumer protection.

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[8] According to Gabriela Rodrigues (2017, p. 30, our translation), "[u]pon examining the behavior of the group not impacted by this resolution, one notices that the spread has grown year after year after the change in portability legislation, while the spread applicable to the treated group shows a downward trend within a year after the implementation of the new portability rules".

The scope of this model includes financial institutions and payment services that will be sharing data such as service location, product characteristics, terms and conditions executed, financial costs, customer registration data. Customer transactional data (e.g., data related to deposit accounts, credit operations, other products and services provided to customers), and payment services data (e.g., payment initiation, funds transfers, payments for products and services). The specifications of sharing procedures, such as the minimum content to be shared, the types of data that can be shared, interoperability requirements, security issues, as well as the tools for obtaining costumer consent were further regulated by Joint Resolution no. 1/2020.

The Joint Regulation, which has also been the subject of a public consultation (Public Consultation no. 73/2019), describes at length the characteristics of open banking. In short, the Resolution proposes a four-step implementation procedure to give financial institutions time to develop interfaces to enable data sharing. To decide on technological patterns and operational procedures to design the interface and sharing protocol, the Resolution establishes that the participating institutions shall sign a convention setting the standards for data sharing – with an example of self-regulation. Besides, the standard provides that institutions cannot create obstacles for data sharing or set complex access instructions.

Despite our cursory analysis of the topic, we believe that the still-open banking initiative seems to be the closest to the scenario we anticipate for data portability in Brazil, as it involves the transfer of a large amount of data. As the BCB's moves show, there needs to be considerable technical instructions to enable data transfer. It should be interesting to see how the actual and final implementation of the open banking initiative — specially its use to self-regulation — evolves.

1.3 TELECOMMUNICATIONS

In telecommunications, portability is provided for telephone number (also known as "number portability"), as customers are given the option to change service providers while maintaining the same phone number. Implementation of number portability is provided by ANATEL's regulation since 1998, by the first Number Regulation (Resolution no. 83). In similar terms, portability was provided by the regulatory framework for mobile services providers (SMP – Resolution no. 301/2002 and Resolution no. 426/2005) and fixed line providers (STFC – Resolution no. 316/2002).

On April 13, 2006, to comply with those provisions, ANATEL's Decree no. 172 created a working group with the goal of proposing a unified regulation on number portability (applied to both STFC and SMP services). The working group consisted of ANATEL members and drafted a basic text — with some core provisions already chosen by ANATEL (e.g., portability must be implemented for STFC and SMP, it must be non-

discriminatory, the number of times the user requests portability must not be limited and it may be charged) (ANATEL, 2006a, p. 3). By September 6, ANATEL opened Public Consultation no. 734 for contributions by e-mail or in person,[9] and held five Public Hearings (two in São Paulo, and the other three in Brasília, Rio de Janeiro, and Fortaleza) (ANATEL, 2006a, p. 189). As a result of the process, after analysis of the contributions by the working group and approval by ANATEL's Advisory Board, Resolution no. 460/2007 was enacted in March 2007 (just eleven months after the project began).

Overall, number portability is the faculty given to STFC and SMP users to keep the same telephone number ("Access Code" as named by ANATEL's Regulation), even if they change their providers, their address (if the provider and the local area are the same) or their plans (within the same provider). This is the core of number portability and, although subject to Public Consultation, suffered no changes, becoming Articles 7 and 8 of Resolution no. 460.

As discussed, the purpose of providing portability as a consumer right was not explored in depth during the internal process at the telecom agency. Nonetheless, in two opportunities, when presenting the matter to ANATEL's Board of Directors, portability was cited as a measure to promote competition in these regulated services (ANATEL, 2006a, p. 36, p. 199). Moreover, during the presentations made during the Public Hearings (ANATEL, 2006b), promoting competition was included among the benefits of portability — besides generating other benefits for consumers: increasing consumer flexibility, incentivizing price reductions and better quality services. Number portability was therefore grounded in consumer law with relevant implications for competition. As such, Articles 12 and 21 of the Resolution interestingly illustrate the interface between the consumer's right to number portability and free competition, respectively. The former allows providers to petition ANATEL to report anticompetitive behavior between the providers, while the latter prohibits commercial practices that impede free competition during transactions intended to enable portability.

The draft regulation of number portability includes other distinctive features. According to Article 14, consumers can be charged for portability in some cases, with a limit value provided by ANATEL.[10] But only the new provider can charge for the operation of the

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[9] In all, ANATEL received 974 contributions, which can be accessed at ANATEL's SACP website. Due to the purpose and limits of this research, this paper only selectively reviewed the contributions — extracted from Informe 24/2007 (page 189 of ANATEL Internal Proceeding no. 53500.020293/2006) —, which summarized the contributions and how they were incorporated into the final version of the Resolution.

[10] Despite this rule being questioned by multiple stakeholders during the Public Consultation, with many stakeholders arguing that as a consumer right, it should be free, ANATEL concluded that this would change the core provisions of the Resolution.

portability process, whilst the original phone provider cannot. The Resolution also provides that the portability request implies the automatic termination of the contract with the previous provider and beginning of the new one (Article 44), but cannot generate a service interruption (unless for the transition period, which can last only up to two hours) (Article 56). To guarantee the effectiveness of number portability requests, the Resolution: (i) limited to a maximum the legal exceptions for denying portability requests (Article 52);[11] (ii) decreed a maximum implementation period of three working days following the portability request (Article 53);[12] (iii) did not adopt the suggestion made by providers during Public Consultation to create a prohibition period after portability, in which the user would have to remain with the new provider after the process; and (iv) created sanctions for those non-compliant with the Resolution (Article 63).

Finally, portability in telecommunications is highly related to technical issues such as network management. Number portability depends on the use of a common database with information concerning the networks and the ported numbers, both indispensable for the correct call routing. In Articles 22 to 30, Resolution no. 460 adopts a centralized approach (as opposed to peer-to-peer approaches) called "All Call Query," meaning that there is a common reference database (BDR) with information on each ported numbers, managed by an Administrative Entity. Each provider, in turn, must have access to this common database and, from there, build its own operational database (BDO). The BDO is a necessary measure for call routing, since it must be consulted every time a person makes a call (Articles 23-25).[13]

As such, number portability depends on some kind of data sharing. Data registered in the BDR and BDO, however, relate only to ported numbers and other network specifications. But portability also requires the transfer of consumers' personal data for authentication and fraud prevention, so each time consumers request portability to a new phone provider, they must indicate some personal data (name, ID, address, number,

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[11] The three opportunities in which a provider can deny a portability request are: (i) incorrect or incomplete data; (ii) invalid number; or (iii) ongoing portability request. During the Public Consultation, providers argued that there should be broader exceptions, to cover indebted consumers, suspected fraud, or suspended service. ANATEL denied such contributions, stating that under the current regulatory scenario, such consumers were not prevented from cancelling a plan with one provider and qualifying for another.

[12] Again, the suggested maximum periods were questioned by providers in the Public Consultation; but ANATEL stated they were set based on international experience and were feasible.

[13] This centralized model created the role of the "Administrative Entity," an independent agent that would be responsible for managing the procedures associated with portability (e. g., ensuring technological solutions for number portability), as well as maintaining the BDR (Articles 33-38). Thus, in this model, providers need to hire the Administrative Entity to implement portability. ABR Telecom (Brazilian Association on Telecommunications Resources), an association integrated by the main telecom providers in Brazil, was appointed as the Administrative Entity responsible for number portability in the country.

and the name of the original provider). With this data, the new phone provider validates the request with the original phone provider, confirming that the data provided correspond to those of the original phone provider (Articles 23-25). Interestingly, the Resolution points to the right to personal data privacy as a right of the consumer requesting number portability (Article 10, IV).

Due to the major adaptations needed to implement portability, two features of Resolution no. 460 should be highlighted. First, it provided a complete roadmap for implementation, including creation of a highly detailed five-stage procedure with multiple interim deadlines (Articles 70-77). Second, it also created the Portability Implementation Group (GIP), which was responsible for coordinating the implementation process, specifying operational and technical details associated with it, as well as choosing the Administrative Entity (Articles 68-69). The regulatory implementation period was supposed to last 18 months, with full number portability activation in the whole country by the end of 2008. Since its promulgation, Resolution no. 460 has not been reviewed and there were, in total, 43,994,033 portability requests in STFC and SMP services carried out (ANATEL, 2020).

Overall, the Brazilian experience with number portability represents a rich case study on portability implementation. First, it creates a highly detailed portability process, establishing a set of consumer rights and guarantees associated with it. Second, it builds on interesting measures to tackle the technical and network challenges associated with number portability implementation (such as, the role of the Administrative Entity, the GIC, and implementation deadlines). Third, the Public Consultation provides a rich material for analysis, with over 900 contributions. Although this study did not seek to assess the level of effective collaboration of such a procedure, our first impression upon reading the final report is that ANATEL was reluctant to accept changes within core elements of the Resolution (like its centralized nature, its free availability and other restricting suggestions), but the initial draft was improved in wording and intelligibility with the procedure.

FINAL CONSIDERATIONS: WHAT TO EXPECT

Our analysis shows that, despite the particularities of each sector's experience, there are common features between the regulation of consumer's right to portability — and the procedures that preceded its conception — in the healthcare, financial services and telecommunication sectors. Table 1 below summarizes these features. We also present some insights as to how we can build on these findings to outline the new right to personal data portability provided by the LGPD, as well as possible developments for its applicability in digital markets.

Table 1 – Portability Features

	Healthcare	Financial Services	Number
Portability Rights			
Cost	Free of charge	Free of charge	May be charged
Format of Request	Termination of previous contract. Request before new provider.	Request before either the original financial institution or the new financial institution.	Request before the new phone provider, which shares data with the original phone provider for authentication.
Period for the provider to respond to request	10 days	15 days (for personal information portability) 10 days (for salary portability)	3 days[14]
Data transmission?	No	Yes	Yes, register data and ported numbers
Data required	N/A	Personal information, bank account data, financial records (for credit portability).	Name, RG or CPF and number.
Necessary cancelation of the previous service?	Yes	No (personal data and salary portability) Yes (credit portability)	Yes
General restrictions	Window period (expanded as of 2019) Price and coverage compatibility. Type of health insurance plan.	Acceptance by the new financial institution (for credit portability)	Little
Regulatory Process			
Public Consultation	Yes	No	Yes
Public Hearing	No	No	Yes
Time before enactment of the applicable norm	~7 months	N/A	11 months

Source: Prepared by the authors based on data from ANS (2008, 2010, 2017a, 2017b, 2017c, 2020a, 2020b,) , BCB (2017, 2018), ANATEL (2006a, 2006b, 2020).

A key issue we identified in all three sectors is the fact that portability was essentially regulated as a consumer right and, as such, depended on the consumer's request, followed, most generally, by a discretionary termination of the original service contract (except for the so-called "special portability" regulated by the ANS and applicable to cases of liquidation or bankruptcy of healthcare carriers). As such, portability ultimately functioned, as expected, to provide greater bargaining power for costumers to push for renegotiation of their contracts.[15]

[14] Resolution no. 460 provided that exceptionally during the first months of implementation, the term would be five days.

[15] As mentioned, as a result of such movement, in the financial sector, for example, about 1/3 of credit portability requests result in the original financial institution renegotiating the original terms and conditions (See BCB, 2017, p. 33).

Turning to the potential developments of such experiences prior to the regulation of data portability in the digital economy, a possible reflection may concern the usual framework of contractual relationships applicable between users-consumers and service providers and platforms: would the somewhat "fluid" relationships provided by adherence to terms of use, rather than bound by rigid agreements and contractual obligations, be a disincentive for users to request portability of their personal data? What about the fact that most user agreements do not involve specific costs to be borne by users (the "zero cost" services)? In fact, the incentives to switch services or platforms remain unclear in the digital economy, especially when compared to "traditional" sectors.

More specifically, we find that each of the previous experiences provide fertile ground for discussing the future outline of data portability in Brazil. The experience in health insurance and the regulatory developments led by ANS indicate as sensitive topics both the challenges of expanding access to data portability and the difficulties in regulating product compatibility. The constant updates to ANS Resolution no. 186/2009 over 10 years indicate the agency's desire to offer portability to an increasingly broad group of costumers, while maintaining a more diverse range of health insurance plans. Conversely, the ANS found the need to better more effectively regulate compatibility rules, so that both consumers and healthcare plan providers were not overburdened.

Transporting such a reflection to personal data portability in digital markets, would inevitably involve the challenge of defining service compatibility among tech services and platforms, which could entail difficulties that go beyond API compatibility and interoperability requirements, and lead practitioners to the much-avoided task of determining the level of substitutability between the services provided by such agents. Moreover, the question of whether portability should only be imposed for compatible and competing services is still an open issue.

The experience of portability in financial services shares a common characteristic with that of the healthcare sector, spelling out some of the challenges that will be faced as data portability is effectively provided and regulated in Brazil in the near future. In both cases, portability has been caught in the crossfire of strengthening consumer rights and expanding customer choice and, on the other hand, bargaining power with the mandated regulatory need to promote stability and systemic risk allocation between market players and, most relevantly, incumbents.

Healthcare and financial services are just examples of economic activities that are intensely regulated and in which portability rights may pose a threat to systemic risks and prudential regulation, as well as to the efficiency of state intervention. Insurance, public services and infrastructure, education, are just a handful of additional sectors that may pose similar challenges. As competition policy, data protection and consumer protection are both transversal and will inevitably need to be developed in coexistence

and coherently with sector-specific regulation. As a "crossroad" between the three, portability will undoubtedly need to be reconciled with regulation, and as healthcare and financial services (in the case of the latter, most recently with open banking) show, this can be an arduous task.

In the telecommunications sector, some interesting features of the right to data portability and the implementation process should also be highlighted. First, the regulation provides that number portability must be non-discriminatory and should not violate data privacy. Recognizing the technical and operational issues associated with number portability, Resolution no. 460 should be commended for proposing a seriatim adaptation period with the entity responsible for guiding implementation.

Overall, the review of different industry experiences revealed a common concept of portability that revolves around allowing consumers to switch service providers in search of better price, quality and general commercial conditions, in such a way that they are not deprived of individual advantages that derive from their (usually longstanding) contractual relationship. Such is the case with credit score and registration data, probationary period, and personal phone number. Broadly speaking, it is a consumer right that aims to reduce switching costs. As such, even if fostering competition in markets seems to be one of the ultimate goals of portability regulation, it is unclear if it suffices to define, determine, and guide further regulation of such right. From there, and considering the prominence of consumer and individual empowerment in modulating portability rights in Brazil, one could ask whether there are other sectors that have witnessed similar experiences without explicitly naming it "portability" but rather as a general provision of consumer law.

Indeed, we seem to be left with a "chicken or egg" problem, since it is unclear whether wider consumer choice prompts competition or the other way around. We see a strong element related to promoting competition, specifically throughout the contractual relationship, not just upon first executing the contract. But given the specific sectors that have witnessed portability experiences, the sensitivity of the economic activities fostered and regulated, and the broad public debate and participation in the discussions surrounding most portability cases, it seems that portability was ultimately designed to protect consumer rights (in constitutionally regulated services), rather than to necessarily promote a less concentrated or competitive market. As such, the relationship between data portability and competition may not be as straight-forward as some have suggested. Even if in theory both lead to similar outcomes, in practice that may not be the case.

Finally, it should be interesting to see how the implementation of open banking regulation in Brazil evolves. As indicated, many of the challenges associated with it can be replicated in data portability regulation (large amounts of data to be transferred, development of interfaces for data transfers, self-regulation, etc.).

REFERENCES

ALMEIDA, D. F. *Competição entre dinâmica individual e coletiva em modelos de agentes econômicos*. 2015. Dissertação (Mestrado em Ciências) – Instituto de Física, Universidade de São Paulo, São Paulo, 2015.

ANATEL – AGÊNCIA NACIONAL DE TELECOMUNICAÇÕES. *Processo Interno nº 53500.020293/2006 - Proposta de Consulta Pública Regulamento de Portabilidade*. Brasília: ANATEL, 2006a. Disponível em: https://sei.anatel.gov.br/sei/modulos/pesquisa/md_pesq_processo_exibir.php?exIsiWoPbTSMJNP15y_TiUpWIfXjgqaCc-xbh3o0V5ttS0uQqIkRDNDdsrlbDPN0z9DjOh_HT6NYS_BYkN5mlH_YkpkNPxIKokUam8pi9dFyqZJTDjjrV1dEeU8D0Ca4. Acesso em: 22 mar. 2022.

ANATEL – AGÊNCIA NACIONAL DE TELECOMUNICAÇÕES. *Apresentação - Consulta Pública nº 734, de 30 de outubro de 2006*. Brasília: ANATEL, 2006b Disponível em: https://www.anatel.gov.br/Portal/verificaDocumentos/documento.asp?numeroPublicacao=125929&assuntoPublicacao=null&caminhoRel=null&filtro=1&documentoPath=/acontece_anatel/palestras/audiencia_portabilidade_numerica.pdf. Acesso em: 14 mar. 2022.

ANATEL – AGÊNCIA NACIONAL DE TELECOMUNICAÇÕES. *Portabilidade numérica*. Brasília: ANATEL, 2020. Disponível em: https://www.anatel.gov.br/dados/controle-de-qualidade/portabilidade. Acesso em: 31 ago. 2020.

ANS - AGÊNCIA NACIONAL DE SAÚDE SUPLEMENTAR. *Exposição de Motivos para a publicação da Resolução Normativa sobre mobilidade com portabilidade de carências*, Rio de Janeiro: ANS, 22 set. 2008. Disponível em: http://www.ans.gov.br/images/stories/Legislacao/consultas_publicas/cp_29_exposicao_de_motivos.pdf. Acesso em: 14 mar. 2022.

ANS – AGÊNCIA NACIONAL DE SAÚDE SUPLEMENTAR. *Câmara Técnica de Portabilidade de Carências*. Rio de Janeiro: ANS, 2010. Disponível em: http://www.ans.gov.br/participacao-da-sociedade/camaras-e-grupos-tecnicos/camaras-e-grupos-tecnicos-anteriores/camara-tecnica-de-portabilidade-de-carencias?highlight=WyJybiJd. Acesso em: 31 ago. 2020.

ANS – AGÊNCIA NACIONAL DE SAÚDE SUPLEMENTAR. *Atas e Documentos das Reuniões do Comitê de Regulação da Estrutura dos Produtos*. Rio de Janeiro: ANS, 2017a. Disponível em: http://www.ans.gov.br/participacao-da-sociedade/comites-e-comissoes/comite-de-regulacao-da-estrutura-dos-produtos/atas-e-documentos-das-reunioes-do-comite-de-regulacao-da-estrutura-dos-produtos. Acesso em: 31 ago. 2020.

ANS – AGÊNCIA NACIONAL DE SAÚDE SUPLEMENTAR. *Comitê de Regulação da Estrutura dos Produtos: Portabilidade de Carências.* Rio de Janeiro: ANS, 17 mar. 2017b. Disponível em: http://www.ans.gov.br/images/stories/Particitacao_da_sociedade/2017_comite_estrutura_produtos/reuniao_1_apresentacao.pdf. Acesso em: 14 mar. 2022.

ANS – AGÊNCIA NACIONAL DE SAÚDE SUPLEMENTAR. *Relatório de Conclusão da Consulta Pública no. 63/2017 - Atualização da Resolução Normativa que regulamenta a Portabilidade de Carências*. Cuida-se da Consulta Pública no. 63, convocada pela ANS, entre os dias 10/08/2017 e 11/09/2017, com o objetivo de atualizar a norma de portabilidade de carências, conforme decisão da Diretoria Colegiada da ANS em sua 469ª Reunião Ordinária, realizada em 24 de julho de 2017. Rio de Janeiro: ANS, 16 out. 2017c. Disponível em: http://www.ans.

gov.br/images/stories/Particitacao_da_sociedade/consultas_publicas/cp63/relatorio_consulta_publica.pdf. Acesso em: 14 mar. 2022.

ANS – AGÊNCIA NACIONAL DE SAÚDE SUPLEMENTAR. Índice de Reclamações. Rio de Janeiro: ANS, 2020b. Disponível em: http://www.ans.gov.br/planos-de-saude-e-operadoras/informacoes-e-avaliacoes-de-operadoras/indice-de-reclamacoes. Acesso em: 31 ago. 2020.

BCB – BANCO CENTRAL DO BRASIL. Exposição de Motivos - Circular no. 3.900/2018, de 17 de maio de 2018. Estabelece procedimentos para transferência em caráter definitivo dos créditos aportados em conta destinada ao registro e controle do fluxo de recursos relativos ao pagamento de salários, proventos, soldos, vencimentos, aposentadorias, pensões e similares (conta-salário) para contas de depósitos ou de pagamento pré-pagas (portabilidade salarial). *Diário Oficial da União*, Brasília, 21 maio 2018. Disponível em: https://www.in.gov.br/en/web/dou/-/circular-n-3-900-de-17-de-maio-de-2018-15131615#:~:text=Estabelece%20procedimentos%20para%20transfer%C3%AAncia%20em,dep%C3%B3sitos%20ou%20de%20pagamento%20pr%C3%A9%2D. Acesso em: 11 mar. 2022.

BCB – BANCO CENTRAL DO BRASIL. *Relatório da Economia Brasileira*, *2017*. Brasília: BCB, 2017. Disponível em: https://www.bcb.gov.br/pec/depep/spread/REB_2017.pdf. Acesso em: 11 mar. 2022.

BRASIL. MJSP - MINISTÉRIO DA JUSTIÇA E SEGURANÇA PÚBLICA; CADE - CONSELHO ADMINISTRATIVO DE DEFESA ECONÔMICA. *Acordo de Cooperação Técnica nº 5/2021*. Processo no. 08700 .002088/2021-51 (SEI/CADE). Processo no. 00261.000483/2021-12 (SEI/ANPD). Acordo de cooperação técnica entre Conselho de Defesa Econômica - CADE e a Autoridade Nacional de Proteção de Dados - ANPD, para o aperfeiçoamento das ações voltadas à defesa, fomento e disseminação da concorrência no âmbito dos serviços de proteção de dados. Brasília, DF: MJSP; CADE, 31 maio 2021. Disponível em: https://www.gov.br/anpd/pt-br/assuntos/noticias/act-tarjado-compactado.pdf. Acesso em: 14 mar. 2022.

CRÉMER, J.; MONTJOYE, Y.; SCHWEITZER, H. *Competition policy for the digital era.* 2019. Disponível em: <http://publications.europa.eu/publication/manifestation_identifier/PUB_KD0419345ENN>. Acesso em: 6 set. 2019.

CIPL – CENTRO DE DIREITO, INTERNET E SOCIEDADE DO INSTITUTO BRASILIENSE DE DIREITO PÚBLICO (CEDIS-IDP); CENTRE FOR INFORMATION POLICY LEADERSHIP. *Prioridades das Organizações Públicas e Privadas Implementarem de Forma Eficaz a Nova Lei Geral Brasileira de Proteção de Dados (LGPD)*. Disponível em: https://www.informationpolicycentre.com/uploads/5/7/1/0/57104281/[pt]_cipl-idp_white_paper_on_top_priorities_for_organizations_to__effectively_implement_the_lgpd_7_october_2020_.pdf. Brasília: CEDIS, CPIL, 2020. Acesso em: 22 mar. 2022.

DIGITAL COMPETITION EXPERT PANEL. *Unlocking digital competition.* Report of the Digital Competition Expert Panel. London: Digital Competition Expert Panel, 2019. Disponível em: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785547/unlocking_digital_competition_furman_review_web.pdf. Acesso em: 9 out. 2019.

EGAN, E. Charting a way forward on data portability and privacy. *Meta*, 4 set. 2019. Disponível em: https://about.fb.com/news/2019/09/privacy-and-data-portability/. Acesso em: 11 mar. 2022.

FRA – EUROPEAN UNION AGENCY FOR FUNDAMENTAL RIGHTS. *Your rights matter:* data protection and privacy. Fundamental rights survey. Viena: FRA, 2020. Disponível em:

https://fra.europa.eu/sites/default/files/fra_uploads/fra-2020-fundamental-rights-survey-data-protection-privacy_en.pdf. Acesso em: 11 mar. 2022.

KRAEMER, J. Personal data portability in the platform economy: Economic implications and policy recommendations. *Journal of Competition Law & Economics*, v. 17, n. 2, p. 263-308, 2021. DOI: https://doi.org/10.1093/joclec/nhaa030.

KRÄMER, J.; SENELLART, P.; STREEL, A. *Making data portability more effective for the digital economy.* Brussels: Centre on Regulation in Europe, 2020. Disponível em: https://cerre.eu/wp-content/uploads/2020/07/cerre_making_data_portability_more_effective_for_the_digital_economy_june2020.pdf. Acesso em: 7 out. 2021.

OECD – ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT. *Big data:* Bringing competition policy to the digital era. Paris: OECD, 2016. Disponível em: https://www.oecd.org/competition/big-data-bringing-competition-policy-to-the-digital-era.htm. Acesso em: 11 mar. 2022.

PONCE, P. P. Direito à portabilidade de dados: entre a proteção de dados e a concorrência. *Revista de Defesa da Concorrência*, v. 8, n. 1, p. 134-176, 2020. Disponível em: https://revista.cade.gov.br/index.php/revistadedefesadaconcorrencia/article/view/521. Acesso em: 11 mar. 2022.

RODRIGUES, G. A. *Portabilidade de crédito e spread bancário*: Uma evidência do mercado brasileiro. 2017. Dissertação (Mestrado em Mestrado Profissional em Administração) – Insper Instituto de Ensino e Pesquisa, São Paulo, 2017.

SWIRE, P.; LAGOS, Y. Why the Right to Data Portability Likely Reduces Consumer Welfare: Antitrust and Privacy Critique. *Maryland Law Review*, v. 72, n. 2, p. 335-380, 2012. Disponível em: https://digitalcommons.law.umaryland.edu/cgi/viewcontent.cgi?article=3550&context=mlr. Acesso em: 11 mar. 2022.

UE – UNIÃO EUROPEIA. *Article 29 data protection working partygráfico*. Guidelines on the right to "data portability". Bruxelas: UE, 2016. Disponível em: https://ec.europa.eu/newsroom/article29/items/611233 Acesso em: 14 mar. 2022.

WOHLFARTH, M. Data portability on the Internet: An economic analysis. *Business & Information Systems Engineering*, v. 61, n. 5, p. 551-574, 2019. DOI: https://doi.org/10.1007/s12599-019-00580-9.

ZANFIR, G. The right to Data portability in the context of the EU data protection reform. *International Data Privacy Law*, v. 2, n. 3, August 2012, p. 149–162, 2012.