FINANCIAL TECHNOLOGY LAW REVIEW

SIXTH EDITION

Editor

ELAWREVIEWS



FINANCIAL TECHNOLOGY LAW REVIEW

SIXTH EDITION

Editor

Thomas A Frick

Published in the United Kingdom
by Law Business Research Ltd
Holborn Gate, 330 High Holborn, London, WC1V 7QT, UK
© 2023 Law Business Research Ltd
www.thelawreviews.co.uk

No photocopying: copyright licences do not apply.

The information provided in this publication is general and may not apply in a specific situation, nor does it necessarily represent the views of authors' firms or their clients. Legal advice should always be sought before taking any legal action based on the information provided. The publishers accept no responsibility for any acts or omissions contained herein. Although the information provided was accurate as at April 2023, be advised that this is a developing area.

Enquiries concerning reproduction should be sent to info@thelawreviews.co.uk.

Enquiries concerning editorial content should be directed to the Content Director,

Clare Bolton – clare.bolton@lbresearch.com.

ISBN 978-1-80449-162-1

ACKNOWLEDGEMENTS

The publisher acknowledges and thanks the following for their assistance throughout the preparation of this book:

CMS CAMERON MCKENNA NABARRO OLSWANG LLP

CMS REICH-ROHRWIG HAINZ RECHTSANWÄLTE GMBH

DLA PIPER UK LLP

GILBERT + TOBIN

GONZALEZ CALVILLO, SC

HUNTON ANDREWS KURTH LLP

INDUSLAW

LECOCQASSOCIATE

LEE & KO

LEE AND LI, ATTORNEYS-AT-LAW

MORI HAMADA & MATSUMOTO

NIEDERER KRAFT FREY

NOERR PARTNERSCHAFTSGESELLSCHAFT MBB

SRP-LEGAL

SSEK LAW FIRM

TOZZINIFREIRE ADVOGADOS

VIEIRA DE ALMEIDA

CONTENTS

| PREFACE | | ۰۰۰۰ ۱ |
|----------------|---|--------|
| Thomas A Frick | | |
| Chapter 1 | CRYPTOASSETS, NFTS AND DAOS: A SWISS PERSPECTIVE | 1 |
| | Dominique Lecocq, Lucile Cesareo-Hostettler and Facundo Sirena Isorni | |
| Chapter 2 | FINTECH DISPUTES | 8 |
| | Kushal Gandhi and Vanessa Whitman | |
| Chapter 3 | AUSTRALIA | 15 |
| | Peter Reeves and Georgina Willcock | |
| Chapter 4 | AUSTRIA | 27 |
| | Stefan Paulmayer | |
| Chapter 5 | BELGIUM | 43 |
| | Pierre E Berger and Marc Van de Looverbosch | |
| Chapter 6 | BRAZIL | 60 |
| | Alexei Bonamin, Marcela Waksman Ejnisman, Carla do Couto Hellu Battilana, | |
| | Marcus Fonseca, Victor Cabral Fonseca and Leonardo Medeiros Braghetto | |
| Chapter 7 | GERMANY | 70 |
| | Jens H Kunz | |
| Chapter 8 | INDIA | 98 |
| | Avimukt Dar, Namita Viswanath, Shreya Suri, Aditya G, Nikhil Vijayanambi and Abhijit Chakrabarti | |
| Chapter 9 | INDONESIA | 110 |
| | Winnie Yamashita Rolindrawan, Ruth Margaretha Ginting and Farrah Azizah Habibie | |

Contents

| Chapter 10 | JAPAN | 119 |
|------------|--|-----|
| | Atsushi Okada, Takane Hori and Takahiro Iijima | |
| Chapter 11 | MEXICO | 134 |
| | Daniel Guaida Azar and Lucía Fernández González | |
| Chapter 12 | PORTUGAL | 144 |
| | Tiago Correia Moreira, Conceição Gamito, Helena Correia Mendonça and David Paula | |
| Chapter 13 | SOUTH KOREA | 160 |
| | Chloe Lee, Wooyoung Choi, Il Shin Lee and Kun Hoon Lee | |
| Chapter 14 | SWITZERLAND | 170 |
| | Thomas A Frick | |
| Chapter 15 | TAIWAN | 183 |
| | Abe T S Sung and Eddie Hsiung | |
| Chapter 16 | TURKEY | 195 |
| | Cigdem Ayozger Ongun and Deniz Erkan | |
| Chapter 17 | UNITED KINGDOM | 205 |
| | Sam Robinson and Robert Dedman | |
| Chapter 18 | UNITED STATES | 219 |
| | Erin Fonté, Scott Kimpel and Carleton Goss | |
| Appendix 1 | ABOUT THE AUTHORS | 231 |
| Appendix 2 | CONTRIBUTORS' CONTACT DETAILS | 247 |

PREFACE

This sixth edition of *The Financial Technology Law Review* is published after another rollercoaster year for crypto in particular, but also for many other fintech projects.

Bitcoin, and with it many other cryptocurrencies, soared to all-time highs in 2021, but dropped to less than a third of their value since April 2022 (although a limited recovery was made in 2023). This caused problems for a country like El Salvador, which declared Bitcoin as an official currency of the country (together with the US dollar). More than 50 central banks worldwide researched or even implemented blockchain-based central bank digital currencies (CBDCs), from Iran to the United States, the European Union and China. The Bahamas may have been the first to launch, in 2020, a CBDC, but it will not remain the only country to do so.

In addition to CBDCs and the metaverse, media attention in early 2022 focused on non-fungible tokens and decentralised finance (DeFi). While many DeFi projects build on the initial Bitcoin dream of creating a decentralised, trustless financial ecosystem, whether DeFi will be able to impact traditional financial market participants significantly remains to be seen. Crypto exchanges started to list at traditional exchanges, and in many countries there are now well-established investment products focused on cryptocurrencies, DeFi projects or fintech startups. Hence, fintech may claim to have become an established part of the financial ecosystem from also an investment perspective. However, this is only one side of the coin.

The year 2022 will be remembered most likely not for the establishment of a mature fintech ecosystem, but rather for the problems of crypto (cryptocurrencies did not recover in 2022 so that talk was again of a crypto-winter), the massive layoffs of many fintech companies (one of the first one to do so was online mortgage lender Better.com) and scandals: in the summer of 2022, the crypto hedge fund 'Three Arrows Capital' was liquidated. The *Wirecard* case, albeit dating back to 2020, went to court at the end of 2022 (a verdict is not expected until 2024) and this case draws attention again to the risks of fraud. The biggest scandal was related to the implosion of FTX, the world's second largest crypto exchange after Binance, which then led to the bankruptcy of other companies such as BlockFi and the Chapter 11 application of Genesis.

Unsurprisingly, new regulations were thus urgently welcomed by the crypto community. In the European Union, the much debated Markets in Crypto Assets (MiCA) Regulation has been approved and is expected to enter into force in early 2023. MiCA regulates primary market activities and the access to secondary markets as well as certain crypto-related services. It covers not only asset tokens but also all other crypto assets, including Bitcoin and utility tokens, but does not cover securities or unique cryptoassets (i.e., true NFTs). In the United States, there are several initiatives that are pending, on which Congress should pass legislation, addressing risks that digital assets pose to the financial system. The Bank for

International Settlement (BIS) completed a pilot in October 2022 with four central banks on the use of CBDCs by commercial banks for real-value transactions across borders. However, in December, BIS also set a standard and limit (to be implemented by 1 January 2025) on the banks' exposure to crypto markets by establishing a limit of 2 per cent for crypto reserves at banks.

Therefore, the outlook for 2023 is promising with more regulated ecosystems, which may widen the gap between jurisdictions with regulations and jurisdictions without (or without sufficiently suitable or enforced regulations). Regtech may profit from this. Furthermore, artificial intelligence seems to have reached a stage where it will be widely adapted. Data may be more widely shared and systems could become more interconnected. Finally, the service offerings in the metaverse may become more successful. Furthermore, banks could start to play a much bigger role, as ecosystems become more mature (and banks more tech-savvy).

These developments mean that it is worth watching out for new opportunities that regulations will create. National solutions will continue to vary considerably between jurisdictions. Hence, a structured collection of overviews of certain aspects of fintech law and regulation such as *The Financial Technology Law Review* continues to be valuable not only for the international practitioner, but also for anyone who looks for inspiration on how to deal with unaddressed and unexpected issues under the national law of any country.

The authors of this publication are from the most widely respected law firms in their jurisdictions. They each have a proven record of experience in the field of fintech; they know both the law and how it is applied. We hope that you will find their experience invaluable and enlightening when dealing with any of the varied issues fintech raises in the legal and regulatory field.

The emphasis of this collection is on the law and practice of each of the jurisdictions, but discussion of emerging or unsettled issues has been provided where appropriate. The views expressed are those of the authors and not of their firms, the editor or the publisher. In a fast-changing environment, every effort has been made to provide the latest intelligence on the current status of the law.

Thomas A Frick

Niederer Kraft Frey Zurich April 2023

TURKEY

Cigdem Ayozger Ongun and Deniz Erkan¹

I OVERVIEW

The general policy and regulatory approach in the fintech ecosystem are to ensure the establishment of a regulatory infrastructure to implement financial and information security. The essential legal and regulatory matters concerning fintech are those regarding payment services, e-money institutions and alternative funding methods. This is mainly the Law on Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions (Law No. 6493), which regulates the activities and licensing of payment systems, electronic money institutions and payment institutions in Turkey. Pursuant to the Amendment to Law No. 6493, the Turkey Payment Services and Electronic Money Association was established, to which payment institutions and electronic money institutions are obliged to become members.

The Regulation on Payment Services and Electronic Money Issuance and Payment Service Providers and the Communiqué on Information Systems of Payment and Electronic Money Institutions and Data Sharing Services in the Field of Payment Services Providers were published in the Official Gazette dated 1 December 2021, with a transition period of one year, however, the transition period has been extended to 28 February 2023. The Regulation aims to regulate the operations and services of payment and electronic money institutions more strictly in comparison to the previous Regulation.

One of the developments emphasising Turkey's approach regarding the fintech sector is the direct inclusion of fintech companies, namely payment institutions to the FAST system in 2023, thus supporting the development and competitiveness of fintech companies among other actors.

As regards cryptoassets, the Regulation Prohibiting Payments Through Crypto Assets (the Crypto Assets Regulation), issued by the Central Bank of the Republic of Turkey (CBRT), which entered into force on 30 April 2021 prohibits licensed payment institutions and electronic money institutions from using cryptoassets in their operations; however, it does not introduce any regulations concerning trading platforms. Additionally, within the framework of the Regulation Amending the Regulation on Measures Regarding Prevention of Laundering Proceeds of Crime and Financing of Terrorism, (the MASAK Regulation), cryptoasset service providers are regarded as 'obliged parties' and will be subject to inspection by the Turkish Financial Crimes Investigation Board (MASAK).

Furthermore, Istanbul Finance Centre Law No. 7412 (Law No. 7412), which regulates the management and operation of the Istanbul Finance Centre (IFC), financial activities to

¹ Cigdem Ayozger Ongun is a managing partner and Deniz Erkan is a senior attorney at SRP-Legal.

be provided in the IFC and the incentives, deductions, exemptions and exceptions to apply to these activities, was published in the Official Gazette on 28 June 2022. Law No. 7412 aims to increase the financial competitiveness of Turkey, strengthen integration into international financial and capital markets, develop high value-added financial products and services and promote the IFC as an international finance centre. In addition, fintech startups will be supported by the finance and technology base that is to be established in the Istanbul Finance Centre.

Although not exclusive to the fintech sector, there are tax incentives available to entities operating in the technology sector. According to Law No. 4691 on Technology Development Zones, fintech companies located in technoparks can benefit from numerous tax incentives, including exemption from corporate tax, income tax, VAT and stamp tax. Furthermore, with the Amendment Law on Technology Development Zones No. 31384, which was published in the Official Gazette dated 3 February 2021, a taxpayer whose primary place of business is located within a designated tech zone shall be exempted from the duty of paying corporate tax and income tax until 31 December 2028.

As per the Fintech Guide published by the Presidency Finance Office, there are a total of 739 fintech companies in Turkey. As per the list on the website of the CBRT, there are a total of 74 accredited payment and e-money fintech companies within Turkey as of February 2023; this number has increased in comparison to the previous year, which is a positive development for the fintech sector.

II REGULATION

i Licensing and marketing

A comprehensive scope of financial services and activities is regulated under Turkish legislation. Financial institutions are obliged to obtain authorisation from relevant regulators (i.e., the CBRT, the Capital Markets Board (CMB) and the Treasury) to be incorporated and to conduct financial activities. As per Law No. 6493, licensing requirements apply in all cases that involve the provision of payment and e-money services. Payment services and e-money services can only be offered if the provider is granted a licence by the CBRT.

Pursuant to the Regulation on Payment Services and Electronic Money Issuance and Payment Service Providers, requirements for applications for operation permits are subject to a two-stage evaluation: an informative investigation stage and a final stage. The corporate name of the company applying for an operation permit is required to contain phrases showing that it is a payment institution or an e-money institution, and the application fee for the authorisation permit is determined as 500,000 Turkish lira. Furthermore, pursuant to the Communiqué published by the CBRT, which entered into force as of 30 June 2023, the amount of the paid-in capital of the company, free from collusion, has been increased to 7 million Turkish lira for payment institutions providing intermediary services for invoice payments exclusively, to 15 million Turkish lira for other payment institutions, and 41 million Turkish lira for electronic money institutions. Furthermore, according to the Regulation, institutions are required to pay a licence fee of 1 million Turkish lira upon receipt of the operation permit.

As regards the sale and marketing of financial services and products, the CMB's Communiqué on Principles on Investment Services and Activities and Ancillary Services

(No. III-37.1) and the BRSA's Regulation on Banks' Procurement of Support Services impose certain restrictions on financial service providers as well as vendors providing the sale and marketing of financial services in Turkey.

The automated digital advisory is not regulated under Turkish legislation; however, if the advisory services to be carried out are in relation to a regulated financial activity, regardless of its form, either digital or in person, these advisory activities may be subject to an authorisation or an exemption, depending on the type and content.

In terms of asset management companies, the Asset Management Regulation sets forth that asset management companies must obtain authorisation from the BRSA prior to their establishment to carry out their activities, and the paid-in capital, free of all kinds of collusion and in cash, may not be less than 50 million Turkish lira.

Providing credit references or credit information services in Turkey is a regulated activity under Law No. 5411; however, this does not directly apply to the fintech sector.

ii Cross-border issues

Pursuant to Turkish legislation, a licence to provide financial services in Turkey may only be obtained if the company is governed by Turkish law. However, pursuant to the Regulation on Payment Services and Electronic Money Issuance and Payment Service Providers, fintech companies may cooperate with institutions abroad when providing financial services.

A fintech company is required to be incorporated and licensed in the local Turkish jurisdiction by the CBRT. The requirement also applies to companies that provide cross-border services and products, and whether the products are actively marketed, or the client in the jurisdiction solicits the service or product, is not relevant.

The Regulation allows cooperation with legal entities residing abroad that have obtained permission from the CBRT, in line with their objectives or operations. However, the foreign legal entity in question must also be authorised to provide payment services or issue electronic money by the relevant authorities of the country in which its headquarters are located. The legal entity residing abroad, with which the cooperation is made, may not be exposed as the face of the service alone to the customer.

Furthermore, pursuant to the MASAK Regulation, branches, agencies, representatives, commercial proxies and similar affiliated units in Turkey will be deemed liable for cryptoasset service providers headquartered abroad.

Pursuant to the Turkish Direct Foreign Investment Law (Law No. 4875) and Law No. 5411, there are no restrictions or limitations on the ownership of companies by foreigners. On the contrary, direct foreign investments are promoted through Law No. 4875.

III DIGITAL IDENTITY AND ONBOARDING

There is no general regulation regarding digital identity in Turkish legislation. However, there are separate pieces of legislation concerning the elements of electronic capture and storage attributes or credentials that may uniquely identify a person and create a digital identity.

The Electronic Signature Law (Law No. 5070) lays out the principles of digital identification. The Communiqué on Electronic Signature and Relevant Procedures and Technical Criteria also sets a technical basis regarding the electronic signature that may be used in the creation of a digital identity.

Relevantly, the term 'open banking' is defined in the Regulation on Banks' Information Systems and Electronic Banking Services, published in the Official Gazette dated 15 March 2020, which entered into force on 1 January 2021. In this context, open banking services are now used for digital identity. In the press release dated 1 December 2022 of the CBRT, it was announced that CBRT launched open banking services, which is another important component of the digital economy roadmap of its Liraization Strategy. Currently, six banks have started to provide services through the 'Open Banking Gateway' (GECIT) infrastructure developed by the Interbank Card Centre (BKM), which enables standard open banking transactions to be offered to the parties. In addition, CBRT published Guidelines for Data Sharing Services in Payment Services on 30 December 2022 and detailed information technology development-related rules have been determined for payment institutions.

The Regulation on Remote Identification Methods to be Used by Banks and Establishment of Contractual Relations in Electronic Environment, drafted by the BRSA determines remote identification methods. The CMB is authorised to provide the applications to be used in the execution of the remote identification process through a central structure.

Pursuant to Article 6/A of the Regulation on the Prevention of Laundering Proceeds of Crime and the Financing of Terrorism by the MASAK Regulation, if the legislation pertaining to the obliged party's main field of activity allows for the establishment of a contract with methods that will allow the verification of the customer's identity without face-to-face contact with the customer, remote identification methods may be used to verify the identity of the customer in the establishment of a permanent business relationship with real persons. The Ministry of Treasury and Finance is authorised to determine the methods and measures that can be used. In accordance with the Financial Crimes Investigation Board General Communiqué (No. 19), published in the Official Gazette dated 30 April 2021 and numbered 31470, remote identification tools such as informatics or electronic communication devices can be used within the methods determined for obliged parties. For remote identification, there is no restriction on whether the customer is a Turkish citizen and there is no limitation on transactions in which it can be used. Notably, the monetary limit regarding customer identification, including digital identification by fintech companies in terms of electronic transfers, is 15,000 Turkish lira.

The press release dated 29 December 2022 of the CBRT announced that the first payment transactions on the Digital Turkish Lira Network were successfully carried out within the scope of the first phase of the Digital Turkish Lira Project.

IV DIGITAL MARKETS, PAYMENT SERVICES AND FUNDING

Law No. 6493 and its supplemental secondary legislation regulate the market and concepts such as e-money, digital wallets and digital currencies.

In terms of digital marketplaces, the Law Amending the Law on the Regulation of Electronic Commerce No. 31889 has been published in the Official Gazette dated 7 July 2022. This Law adds new clauses and defines important concepts relating to electronic commerce, such as electronic commerce intermediary service provider and electronic commerce service provider. In this regard, the Regulation on the Electronic Commerce Intermediary Service Providers and Electronic Commerce Service Providers No. 32058 has been published in the Official Gazette dated 29 December 2022. The Regulation stipulates the obligations of electronic commerce intermediary service providers and electronic commerce service providers, unfair commercial practices in electronic commerce, unlawful content, intermediation agreements, electronic commerce licence and other issues related to electronic commerce. The Crypto Assets Regulation defines cryptoassets as intangible

assets that are created virtually by technology such as distributed ledger technology or similar and are distributed through digital networks but cannot be acknowledged as 'fiat money, deposit money, electronic money, payment instruments, securities or other capital market instruments' and stipulates that a special set of rules shall be applied to cryptoassets.

The general rules and principles regarding investment funds are mainly regulated under the Law on Capital Markets (Law No. 6362). The CMB has regulated further details regarding the establishment and activities of investment funds under the Communiqué on the Principles of Investment Funds (No. III.52.1) and has also introduced the Investment Funds Guide with its Resolution No. 19/614, to clarify the rules and principles stipulated in the Communiqué.

Communiqué No. III-35/A.2 on Crowdfunding entered into force upon its publication in the Official Gazette dated 27 October 2021 and designates the CMB as the supervisory regulatory authority. As per the Communiqué, crowdfunding activities shall be conducted via crowdfunding platforms, which can be joint stock companies solely providing crowdfunding services; or investment institutions that are development and investment banks, participation banks or intermediary institutions.

Additionally, peer-to-peer lending is not currently regulated in a manner synonymous with the definition found under PSD II. However, debt-based crowdfunding platforms, which can be considered peer-to-peer lending, have just been regulated, although a communiqué for these platforms has not yet been prepared by the CMB.

Law No. 7192, introducing a variety of amendments to Law No. 6493, stipulates that the CBRT is vested with the power to enact secondary legislation that may require payment service providers to share data with other payment service providers. In this regard, pursuant to the Regulation on Banks' Information Systems and Electronic Banking Services, the private financial data of customers in banks can be shared with third parties, namely third-party providers, with customer permission. With this model, financial data belonging to customers, and that the banks do not share among themselves, are no longer private to banks and are placed on a common platform with the request and consent of the customer, making the data available to fintech companies.

In line with this approach, in the Turkish Competition Authority's Report on Financial Technologies in Payment Services, the open banking model is explained in response to the need for regulatory rules that prevent exclusionary actions from the very beginning. In addition, the Regulation on the Sharing of Confidential Information, which regulates the sharing and transfer of bank secrets and customer secrets, regulates confidentiality obligation exceptions and the principles regarding the sharing of confidential information.

V CRYPTOCURRENCIES, INITIAL COIN OFFERINGS (ICO) AND SECURITY TOKENS

There are no specific provisions under the Turkish legislation that prohibit individuals from owning and exchanging cryptocurrencies. Nevertheless, the Crypto Assets Regulation prohibits:

- a the direct or indirect use of cryptoassets in making payments;
- the provision of services enabling the direct or indirect use of cryptoassets in making payments;

- the development of business models, or the provision of services related to those business models, by payment service providers regarding the direct or indirect use of cryptoassets in the provision of payment services or the export of electronic money; and
- d payment and electronic money institutions from acting as intermediaries between platforms providing services on the trading, depositing, transferring or exporting of cryptoassets.

Although the Regulation prohibits licensed payment institutions and e-money institutions from using cryptoassets in their operations, it does not introduce any regulations with respect to cryptoasset trading platforms. Taking into consideration that cryptoassets reflect only one aspect of blockchain technology applications, we believe that this Regulation will not prevent significant technological developments that are constituted on blockchain technology, such as digital identity, open data or smart contracts in Turkey.

There is no specific regulation governing ICO or token generation events. The CMB has not yet classified or assessed security tokens.

MASAK published a guide entitled 'Main Principles for the Crypto Asset Service Providers Regarding Prevention of Laundering Proceeds of Crime and Financing of Terrorism' (the Guide) on 4 May 2021. The Guide provides detailed and instructive application-oriented information regarding the obligations that cryptoasset service providers have under the Regulation on Prevention of Laundering Proceeds of Crime as obliged parties, as well as the sanctions imposed if crypto asset service providers fail to fulfil their obligations.

In addition, a Draft Bill that aims to amend the Capital Markets Law No. 6362 to set the legal framework regarding cryptoassets is before the Grand National Assembly of Turkey. In the Draft Bill, the concepts of 'crypto wallet', 'cryptoasset', 'cryptoasset trading platform', 'cryptoasset custody service' and 'cryptoasset service provider' are defined. While the Draft Bill regulates cryptoassets within the Capital Markets Law, it does not qualify the cryptoassets as 'capital markets instruments'. Accordingly, cryptoassets will be subject to a legal regime different from that of capital markets instruments. Lastly, the Draft Bill authorises the Capital Markets Board of Turkey to issue secondary legislation on the matter.

Regarding tax issues, to be able to impose a tax on cryptocurrencies and tokens, the Tax Law has to be amended in a comprehensive manner. If cryptocurrencies were to be qualified as a commodity in Turkey, the income derived from the exchange of cryptocurrencies would be subject to income tax. However, for the time being, gains derived from cryptocurrencies are not included within the types of income that are subject to income tax.

There is no regulation allowing or restricting the offering of tokens to residents from abroad.

VI OTHER NEW BUSINESS MODELS

Owing to the nature of self-executing contracts, without separate legislation to regulate these, their enforceability may be challenged on the grounds that they restrict parties' negotiation power over the terms and conditions of an agreement. In addition, self-executing contracts are not legally enforceable as formal contracts specified by certain laws (e.g., real estate contracts, vehicle sales agreements).

There is no regulation regarding artificial intelligence (AI) under Turkish legislation; however, the Digital Transformation Office, structured under the Presidency, is granted the task of leading the AI transformation process. In this context, the National Artificial Intelligence

Strategy 2021–2025, drafted in cooperation with the Digital Transformation Office of the Presidency of the Republic of Turkey and the Ministry of Industry and Technology, was announced on 24 August 2021, and the Presidential Circular on the National Artificial Intelligence Strategy was published in the Official Gazette dated 20 August 2021.

In addition, the Personal Data Protection Authority published the guide entitled 'Recommendations on the Protection of Personal Data in the Field of Artificial Intelligence' on 15 September 2021. This guide has been prepared by taking into account the studies 'Guidelines on Artificial Intelligence and Data Protection' of the Directorate General of Human Rights and Rule of Law of the Council of Europe, 'Recommendation of the Council on Artificial Intelligence' of the Organisation for Economic Co-operation and Development (OECD), and 'Ethics Guidelines for Trustworthy AI' of the European Commission.

Product price comparison websites are not specifically regulated under Turkish legislation; in particular, the Law on the Protection of Consumers and relevant regulations shall apply.

Developments are expected with regard to personal finance management tools, BNPL, and quick and easy access to the fintech ecosystem, owing to consumer demand. In line with the umbrella of fintech, developments are also expected in insurtech, including tailor-made fast fashion insurance policies.

VII INTELLECTUAL PROPERTY AND DATA PROTECTION

The Turkish jurisdiction does not afford patent protection to software-implemented inventions and business methods. Copyright protection is the method that can be utilised for protecting ownership rights over software. Copyright protection is a natural protection that is offered to the creator from the moment the property is offered or made available to the public. There is no application similar to that of a patent application that is required of a copyright holder.

In principle, pursuant to the Industrial Property Law No. 6769, unless otherwise agreed upon in special contracts executed between the employer and employee or the nature of work, the rights to any designs that were made by employees shall belong to the employer according to employees' job descriptions and obligations arising from the labour contract or owing to the experiences and operations of business organisation. For an invention to qualify as an 'employee service invention', it must be realised during the course of employment. The employee is obliged to report the invention to his or her employer in writing without delay.

There are two distinct regulations regarding the duty of confidentiality: Law No. 5411 governs the confidentiality of banking and financial information, and the Personal Data Protection Law (Law No. 6698) prohibits or sets limitations to the disclosure, processing and transfer of personal information, which would also include client information.

The Regulation on Payment Services and Electronic Money Issuance and Payment Service Providers includes the term 'sensitive customer data' and defines it as personal data and customer security information used in issuing payment orders or verifying the identity of the customer, which, if captured or changed by third parties, may allow fraud or fraudulent transactions on behalf of the customer. In this context, fintech companies are obliged to take the necessary measures for the protection of secrets and personal data, especially sensitive customer data and data belonging to themselves, in the procurement of external services.

In addition, with Law No. 6493 on Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions, the CBRT is authorised to determine

all procedures and principles regarding the service of presenting consolidated information regarding one or more payment accounts of the payment service user with payment service providers on online platforms, provided that the payment service user's approval is obtained and the payment order initiation service is offered for the payment account in another payment service provider at the request of the payment service user.

The Regulation for Disclosure of Confidential Information was published in the Official Gazette dated 4 June 2021. With the Regulation also referring to Law No. 6493, it is aimed at determining the scope, procedures and principles of the sharing and transfer of confidential bank and customer data. Furthermore, Article 73 of Law No. 5411 regulates the confidentiality obligation, exceptions and definition of confidential customer data.

The Guideline Regarding Good Practices on Protection of Personal Data in the Banking Sector (the Guideline of Good Practices) was published on 5 August 2022 by the Personal Data Protection Authority. The purpose of the Guideline of Good Practices is to guide the data controller banks to carry out their personal data processing activities in accordance with the legislation and to set good practice examples within this framework. The issues include data processing agreements, which are to be made between the data controller and data processor, support services, affiliates and subsidiaries, open banking and situations, in which the banks act as agents, have been evaluated within the scope of data controller-data processor relations.

The Guideline on Cookie Application has been published by the Personal Data Protection Board in June 2022. This guideline includes topics such as, the definition of cookies and type of cookies in general, the relation between the Electronic Communication Law No. 5809 (ECL) and PDPL, rules to be considered when using cookies, and cookies requiring or not requiring the granting of explicit consent.

Additionally, as per the Regulation on Banks' Information Systems and Electronic Banking Services, banks can benefit from cloud computing systems as an external service tool, provided that these systems are kept within Turkey in accordance with the provisions of the Regulation. As per the Communiqué on Management and Supervision of Information Systems of Payment Institutions and Electronic Money Institutions, payment institutions and electronic money institutions shall mandatorily have their primary and secondary systems located in Turkey, and cloud computing must be within the scope of these systems. Guidelines for External Service Providers Offering Community Cloud Services to Payment and E-Money Institutions have been published by the CBRT on July 2022, setting additional eligibility requirements for the external service providers wishing to offer services.

As per the Regulation on the Independent Audit of Information Systems and Business Processes, published in the Official Gazette dated 31 January 2022, auditing of the information systems and business processes of the institutions under the supervision and control of the BRSA shall be made by the independent audit firms.

VIII YEAR IN REVIEW

There have been quite a few significant developments in the past 18 months. CBRT published the Guideline on Associating Business Models Offered in the Payments Area with Payment Service Types, as a means to link the business models that are frequently encountered in the field of payments with the payment services listed in Law No. 6493 on Payment and Securities Settlement Systems, Payment Services and Electronic Money Institutions, and

in this context, aiming to ensure uniformity in terms of compliance and authorisation in practice. In this guideline, transactions that fall under the scope of payment services and electronic money issuance activities are explained in detail to ensure uniformity in practice.

The Guideline Regarding Good Practices on Protection of Personal Data in the Banking Sector was published on 5 August 2022 by the Personal Data Protection Authority and constitutes an important resource for personal data processing activities of banks, and also constitutes a means of interpretation for the fintech sector.

The amendments made in the Regulation on Distance Contracts added definitions such as 'intermediary service provider' and 'platform'. The amendments made in the Law on the Regulation of Electronic Commerce provided important concepts related to electronic commerce such as 'electronic commerce intermediary service provider' and 'electronic commerce service provider', and also introduced new actors in the sector.

E-marketplace platforms play an important role in the economy. The Competition Authority published the e-Marketplace Platforms Sector Inquiry Final Report, in which it not only addressed competitive concerns arising from the activities of platform services and e-marketplaces but also presented various policy recommendations. New regulations were adopted in 2022 in this regard.

In addition, in 2022, the Istanbul Finance Centre Law, regulating the activities to be carried out at the Istanbul Finance Centre, which is expected to provide significant investment in the financial sector in Turkey, and the incentives, discounts, exceptions and exemptions for these activities, came into force. The secondary legislation is expected to be published in 2023.

Another important development was the CBRT's announcement dated 1 December 2022, regarding the launch of open banking services.

IX OUTLOOK AND CONCLUSIONS

A developing fintech industry is continuing to emerge in Turkey, as financial technologies are transforming finance, business and transaction models and new regulations are being adopted at a constant rate.

Although it seems that authorities are sceptical concerning the uncertainties surrounding cryptoassets, technological developments and the establishment of public acceptance have led the authorities to discuss the introduction of new regulations regarding cryptoassets.

New regulations are being adopted that enable the entry of new actors to the fintech market, increasing cooperation with the banking sector and facilitating the development of the fintech sector in Turkey, such as the Regulation on Payment Services and Electronic Money Issuance and Payment Service Providers and the Communiqué on Information Systems of Payment and Electronic Money Institutions and Data Sharing Services in the Field of Payment Services Providers. At the end of 2022, the transition period regarding the provisions of the Regulation on Payment Services and Electronic Money Issuance and Payment Service Providers and the Communiqué on Information Systems of Payment and Electronic Money Institutions and Data Sharing Services in the Field of Payment Services for Payment Service Providers was extended until 28 February 2023, to enable the fintech sector actors to properly adapt to the new regulations.

Turkish Payment Services and Electronic Money Association aims to consolidate the data coming from its members in 2022 and to announce the sector reports. For this, the 'TÖDEB Data Transfer System' will be implemented and the sector data shared with

the public for the first time in 2023. A Law on the Support for the Development of Data Centres, Cloud Computing and Platform Services is on the agenda; this is anticipated to have a positive effect on the fintech industry. Additionally, amendments to the Personal Data Protection Law are also anticipated.

Lastly, amendments to the Turkish Commercial Law and Law of Obligations, regarding issues relating to the adaptation to developing technologies and digital transformation, are also expected.