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The evolution and impact of regulation on shaping automated advice services in financial markets

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ABSTRACT

The rapid technological changes in financial markets and the rise of robo-advice services have revolutionised the personal investment advice landscape, with the rise of AI playing a crucial part. This thesis examines how regulation has responded to innovation, with a focus on automated advice services in particular. It can be said that what was is the foundation, what is now the transition, and what will be is the evolution into a new future. It is therefore crucial to understand the evolution of financial regulation in the United Kingdom ("UK") from the perspective of financial advice and its impact on shaping the regulation of robo-advice services. The thesis explores the relationship between current regulation and innovation. The research uses a mixed-method methodology approach, with a focus on a review of UK regulatory frameworks, an analysis of the financial industry's adaptation to new technology, and an examination of AI-driven systems used in robo-advice services. The findings reveal that while the UK's regulatory framework has adapted to the introduction of new technologies, it also presents challenges following their rapid proliferation. The principle of technological neutrality opened the possibility of creating more innovative financial markets. However, following a rapid increase in innovations and a lack of specific AI regulations, questions have been raised about the long-term impact on market stability and consumer protection. The balance between innovation and regulation in robo-advice needs to be closely watched by regulators to minimise possible risks that may arise. The UK's leading role in FinTech makes it a case-study that is of relevance globally as well as nationally. The thesis concludes that the evolution of financial regulation and its role have played a crucial part in shaping the structure and operation of robo-advisors. The research also highlights the need for further regulatory adaptation with a key focus on AI principles.

Keywords: Robo-advisors, financial regulation, automated advice services, AI, technology neutrality, UK financial markets, consumer protection.

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For all these reasons, I dedicate this thesis to my husband, Michal.

AUTHOR'S DECLARATION

"I declare that except where explicit reference is made to the contribution of others, that this dissertation is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution."

Printed Name: Paula Wilczopolska

Signature _____

ABBREVIATIONS

ADR - Alternative Dispute Resolution

AI - Artificial Intelligence

AIRS - The Artificial Intelligence/Machine Learning Risk and Security Working Group

AISI - The Artificial Intelligence Safety Institute

AR - The Appointed Representative

ASIC - Australia Securities and Investments Commission

CVC - Corporate Venture Capital

CFTC - US Commodity Trading Commission

CMA - The Competition and Markets Authority

COBS - FCA's Conduct of Business Sourcebook

DAO - Distributed Autonomous Organisation

DLT - Distributed Ledger Technology

EEA - The European Economic Area

EFT - The Exchange-Traded-Funds

EC - The European Commission

ESG - Environmental, Social and Governance

ESMA - The European Securities Market Authority

EU - The European Union

FAMR - The Financial Advice Market Review

FAWG - The Financial Advice Working Group

FCA - The Financial Conduct Authority

Fintech -The Financial Technology

FIMBRA - The Financial Intermediaries, Managers and Brokers Regulatory Association

FINMA - Swiss Financial Market Supervisory Authority

FOS - The Financial Ombudsman Service

FSA - The Financial Service Authority

FSMA - Financial Service and Markets Act 2000

FSMB - The Financial Services and Markets Bill

GDPR - The General Data Protection Regulation

GFC - The Global Financial Crisis

GHG - Greenhouse Gas Emissions

HKMA - Hong Kong Monetary Authority

HNWI - High Net Worth Individuals

IMF - The International Monetary Fund

IMRO -The Investment Management Regulatory Organisation

ICO - The Information Commissioner's Office

IFA - The Independent Financial Advisor

IOS - The International Organisation for Standardisation

IOSCO - The International Organisation of Securities Commissions

LAUTRO - The Life Assurance and Unit Trust Regulatory Organisation

LLR - The Lender of Last Resort

MAS - Monetary Authority of Singapore

MiFID - The Markets in Financial Instruments Directives

NDC - Nationally Determined Contributions

NGO - Non-Profit Organisations

OECD - The Organisation for Economic Cooperation and Development

OFCOM - The Office of Communications

OFGAS - The Office of Gas Supply

OFT - The Office of Fair Trading

OFWAT - The Water Services Regulation Authority

OFFER - The Office of Electricity Regulation

OFRR - The Office of Rail and Road

OSC - Ontario Securities Commission

P2P - Peer to Peer

PIA - The Personal Investment Authority

PPI - The Payment Protection Plan

PRA - The Prudential Regulation Authority

PROD - FCA's Product Intervention and Product Governance Sourcebook

RDR - The Retail Distribution Review

SDR - Sustainability Disclosure Requirements

SEC - The Securities and Exchange Commission

SIB - The Securities and Investments Board

SMCR - The Senior Managers and Certification Regime

SPV - The Special Purpose Vehicle

SRO - The Self-Regulating Organisations

SYCS - FCA's Senior Management Arrangements, Systems and Controls

TC - FCA’s Training and Competence sourcebook

TPL - Trustless Public Ledger

UK – The United Kingdom

UKIPO - The United Kingdom Intellectual Property Office

UKRN - The UK Regulator’s Network

US - The United States of America

1 Chapter I: Introduction

1.1 Introduction

The financial markets play a significant role worldwide and provide key services such as savings, investments, payments, risk management, and funding for individuals and companies. They support economic growth, new workplaces, and increased social welfare. They can be treated as a part of a more extensive financial system at international or global levels, or isolated at national or local level. They come with a long history in which times of benefit and growth interweave with crises and losses, such as the Global Financial Crises (2007 and 2009) or the COVID-19 pandemic (2020-2022). The last decade has seen a fundamental change in financial markets, which were primarily driven by technological development and regulatory reform. The change is visible in innovation, market size, product complexity, and accessibility. Moreover, the cross-border development of banking, securities and insurance businesses has accompanied the expansion of financial markets and a growing interest in technological advantages. The improvements within the financial markets have made financial processes faster, more reliable, less costly, and more secure. The financial markets have been evolving, and the increased role of technology has had a significant influence. Financial institutions consider it a new way of recruiting customers and retaining existing ones by creating and offering high-quality products tailored to individual needs. The digitalisation of processes and work automation has changed how businesses run and how people manage their financial expectations.
This has also changed people's approach to investing and has created an interest in technology. Nowadays, over five billion people have access to the Internet[1] using a variety of applications; the Internet is virtually used as an extension of human beings. The automation of financial markets has allowed people to invest from anywhere in the world by transforming person-to-person services into digital form. Apart from accessibility and fast transaction execution, it promotes financial inclusion by reaching underserved populations. With the increase of technology in finance, people have started to be more aware of their finances, and due to the wide range of products on offer, they can improve their financial well-being.

1.2 Scope

The increasing role of financial innovation and new products influenced by the Fintech industry started to shape people's perceptions of their finances. Automated advice services – known as robo-advisors – has become a popular form of digital investing by helping people achieve their financial

[1] Statista, 'Number of Internet and Social Media Users Worldwide as of January 2024' <https://www.statista.com/statistics/617136/digital-population-worldwide/> accessed 10 May 2024.

goals. They democratised investing by making it more accessible and affordable for people at all income levels. Robo-advice relates to digital wealth management services that are accompanied by applications and tools with which to choose the most suitable investment portfolio. Automated advice services are not isolated terms and are closely linked to traditional forms of financial advice. It can be said that they were born of personal financial advice which evolved over the years by adjusting to current times.

Traditional financial advice often comes from financial institutions at high cost and limited accessibility, making it less favourable for average people seeking guidance with their finances. Robo-advice represents a switch to a more affordable digital form of advice. It uses automated platforms with built-in algorithms which create and manage the investment portfolio based on the individual's financial goals, risk tolerance, and time horizon.

However, a key aspect in the development of robo-advice is its interaction with regulations. Each economy needs to operate with a stable financial system and relevant regulations. New technology always brings a new challenge to the financial and regulatory environment. Regulation is an essential part of the financial system. It needs to fulfil the principles aimed at protecting the public's savings, promoting confidence in the financial markets, and controlling the money supply.

This thesis focuses on the role regulations play in financial markets, particularly in the context of robo-advice development. The regulatory landscape has changed over time and is changing even more with the increase in technological innovation. New products influenced by the Fintech industry do not always fit into the current regulatory framework. The same is true of automated advice services as a separate regulatory framework for robo-advice has not been fully established. Consequently, the thesis is concerned with finding the correct balance in shaping regulation in the context of automated advice services. The first step is to understand the new product and regulatory uncertainty, including its impact on society. Regulation can build better customer relations as consumer confidence increases. However, it can also create barriers to entry for new entrants.

In the UK, as elsewhere, the law is divided into private and public. Private law governs the relationships between individuals, organisations, and entities and includes contract law, tort law, fiduciary duty, company law, and equity. On the other hand, public law consists of financial statutes, legislation, and regulations. Financial law encompasses altogether different forms of legislation and regulations. Both aspects need to be considered when assessing how innovative businesses with new products would fit into the current regulatory system.

1.3 Methodology

The thesis adopts a mixed-method approach. The legal research combines the contextual approach with the "law in action". The contextual approach offers a broader understanding of the influences that shape law and addresses the specific context in which law is applied. Rather than viewing legal rules and principles in isolation, the approach considers how various external factors impact the development and application of law. An historical analysis was used to map the evolution of financial advice regulation so as to understand how past events and social changes have shaped the current legal framework and its impact on online robo-advice. Statues, cases, journal articles, books, regulatory documents, and policies have been used.

On the other hand, "law in action", despite being distinct from the contextual approach, is related and offers insights into the practical application of the law in the operational environment. This approach allows to go beyond the written laws and regulations ("law in the books") to understand how laws are implemented and enforced by those involved in the robo-advice industry. Policy documents, public consultation, and new regulatory mechanisms such as regulatory sandboxes are analysed in conjunction with the study of market responses to innovation, including the artificial intelligence aspects applied in robo-advice services. Assessment of the market for robo-advice is key as it shows how the market has evolved in response to regulatory changes, including the impact on business models. Further, innovations in financial advice are considered. This shows how the advisory processes have changed and the impact of society. Hence, the mixed-method approach contributes to a more complete understanding of legal phenomena.

Currently, digital robo-advice services follow traditional financial advice regulations; however, technological transformation also creates uncertainty. In this situation, it is crucial to identify effective strategies and best practices that can be shared across the industry.

The thesis investigates how the current regulatory transformation impacts the robo-advice service and whether the present legal system is adequate to maintain transparency and resilience in financial advice services. While investigating the research question, the thesis explores the implications of new technology on different areas of law and the approach that is currently taken to create a stable financial market in the UK.

1.4 Overview of chapters

The first chapter seeks to show the importance of the thesis. The section provides the necessary background information on the topic, its historical context, and key developments. It identifies the boundaries of the research and what will be covered to gain a full understanding of the research. Further, a brief overview of the methodology used is added, together with the data collection method applied across the research. The last section outlines the structure of the thesis and briefly describes each chapter.

The second chapter demonstrates the importance of regulation and its links to the common law of agency. As the UK financial system is based on numerous regulations, it is important to understand their foundation and how the regulatory landscape in the UK changed following increasing globalisation and technological development. It highlights an historical aspect showing the switch from a self-regulation approach to statutory regulation. The chapter shows the pivotal role that regulation is playing in society by integrating businesses and people. The starting point is to show how the common law of agency underpins the relationship between agents and principals, forming the critical component of the market mechanism in the UK's financial industry. While the common law of agency provides important protections, it is often insufficient to address the complexities of financial markets. At this stage, regulatory frameworks are designed to complement and supplement the common law by addressing its limitations and providing safeguards. This is where the objectives of regulation become relevant, which relate to building, maintaining, and promoting confidence in the financial system. They establish the foundation before exploring the rationale for regulation. With constant technological changes in the financial market, the question might be raised about the purpose of the regulation and how regulations will adjust to the new environment. Further, the economic rationale for regulation is discussed. This helps answer the question about the important aspect of regulation, especially when digital transformation starts to play a visible role in financial markets.

The third chapter explores the relationship between technological innovation and a regulatory framework. Constant changes and improvements are visible in the financial markets where new technology has emerged. However, difficulties may arise with the adoption of the relevant legal framework. The evolution of technological developments and financial innovation brings the possibility of improving financial services offered to consumers. However, it also brings regulatory uncertainty as current regulations are not sufficient for businesses facing the fast-changing financial environment and may create a regulatory disconnect between technology and law. The chapter identifies regulatory challenges by showing relevant examples in the form of Blockchain, smart contracts, or application of artificial intelligence (AI), which has started to be used widely in financial

services, including automated advice services. The chapter further presents the principle of technological neutrality which focuses on prioritising the market, as opposed to policymakers, in choosing the correct approach to regulating innovative businesses – if regulating them at all. The aim is to find the correct balance between them in light of different views. That is why most countries pursued domestic and international cooperation better to understand the impact of new technology on regulation. This chapter forms the foundation for the literature review so as to understand the innovation aspect more broadly before moving onto greater detail and specific areas for robo-advice – eg, the application of AI in robo-advice service.

The fourth chapter analyses AI applications, which are an integral part of automated advice services and a key aspect in the technological area. Understanding the main use of technology is essential to finding an answer to the best way to regulate innovation. The chapter explores the benefits and challenges of AI. This helps to identify the different aspects of AI, including risks that can arise due to model complexity. Lack of transparency, difficulties in understanding the outputs, bias, a poorly managed system, and a lack of trust are the main factors behind the AI. The chapter contends that next to the risks, there is also the liability challenge which, if not resolved, can harm consumers and firms. The chapter expands further on the AI governance principles that started to be used widely in the face of no uniform statutory system that could apply. Many government bodies and organisations have already issued and followed trustworthy and responsible AI principles. The chapter also focuses specifically on the AI regulatory approach in the UK which has seen that introduction of numerous initiatives by both the government and the private sector. The chapter assesses the current impact of the application of AI governance on financial regulations and emphasises the principal neutrality role in fostering innovation in financial markets with a focus first on technology over regulation. The milestone in this chapter is an assessment of the legal aspects of AI. The chapter argues that legal personhood is not recognised in AI and that any possible damages arising from AI are for the company's account.

The fifth chapter focuses specifically on automated advice services which are recognised as disruptive innovations and are the main topic of this research. It presents the different types and characteristics of robo-advice currently offered in the markets, including the range of customer benefits. Further, the chapter analyses the challenges that digital advice services face. One of these is the AI risks that were highlighted in chapter four. Here, all risks, such as algorithmic, bias, technology, operational, and liability risks, are clarified and justified from the robo-advice perspective. The chapter argues that the regulatory aspect is not limited to aspects of AI but must also comply with the same regulatory standards applicable to traditional financial advice services. The chapter also assess the balance

between external regulation and reliance on internal governance processes. Further, it identifies the protection available to investors, including remedies and other forms of redress, using automated advice services.

Chapter six explores the evolution of regulation in the context of financial advice. The analysis will help in understanding the changing regulatory environment and the current legal aspect of traditional financial advice. The changes were inevitable and were incorporated after major events, such as the Global Financial Crisis which was associated with the poor treatment of consumers following an even bigger lack of trust in the financial system. The chapter assesses the role of Conduct of Business ("CoB") rules and principles applied to the financial advice regime. It focuses on the most important rules such as suitability, clients' best interests, disclosure of information, and consumer duty.

The final chapter examines the legal aspect of investment advice in greater detail, focusing on both common law and statutory law and related regulations. The indispensable part of the advice regime is the fiduciary duty aspect which arises from the presence of equitable obligations owed by one party to another during their financial relationship. However, the court may also impose the duty of loyalty depending on the situation and relationship in which the party exists. The liability aspect and available remedies are presented, including the role of tort law in the investment context. Moreover, liability in tort is also essential as it allows an application for redress when the contractual relationship does not exist. Private law, in the form of contract law, also merits consideration. The legal form of contract is not only an important part of transactions but also contains the rights and obligations of parties and facilitates transactions between them. Overall, the statutory rules and regulatory requirements complement the applicable common-law aspects, which fulfil the legal understanding of financial advice. This chapter is our final stop before reaching conclusions and presenting the fit of current practices and rules in the application of the robo-advice regime.

2 Chapter II: The Common Law of Agency and the Rationale for Regulation

2.1 Introduction

The current financial system in the UK is based on a myriad of regulations. This regulatory landscape in the UK has developed significantly over time. Increasing globalisation and rapid technological development in cross-border and cross-asset interactions have shaped the financial and regulatory system. Starting from the initial reliance on the general common law, the system moved into self-regulation reforms governed by private associations and professional bodies. Until the late twentieth century, most financial transactions were based on the *caveat emptor* principle, which can be translated as 'let the buyer beware'. If any mistakes were made while borrowing money or investing, the responsibility vested entirely in the buyer. Moreover, beyond common-law remedies, redress options did not exist in cases of bad advice.[2] After joining the European Economic Community in 1972, the UK regulatory environment was converted into more common forms of regulation to match European standards. Over time, the regulatory infrastructure of the financial system has grown. Even in the time of deregulation, more new central regulatory agencies have been created to oversee privatised utility sectors – eg, gas (OFGAS), water (OFWAT), electricity (OFFER), or rail (OFRR). Lastly, after so many financial shocks and times of great uncertainty, the current regulatory environment is more global and integrated than before. A significant change occurred with the introduction of the Financial Service Act 1986 which shifted from a self-regulation approach to statutory regulation. Many regulatory bodies were set up in the UK and worldwide to incorporate tools to improve the system and protect the people.

It is worth noting that one of the core principles in the UK's regulatory framework is the market failure rationale for regulation. Government interventions are justified when markets fail to allocate resources efficiently and equitably. Market failures can occur due to issues such as lack of information, externalities, market power, or public goods.

At this point, the common law of agency becomes relevant as it forms part of the underlying market mechanism. The common law of agency establishes legal rules governing the relationship between an agent and the principal. The rules aim to ensure that agents act in the best interest of their principal by reducing the inefficiencies within the market. However, when agents fail to act, market failures

[2] Philip Booth, 'Is "Market Failure" a Good Justification for Financial Regulation?' [2021] Institute of International Monetary Research <https://mv-pt.org/wp-content/uploads/2021/10/2021-10-06-Research-Paper-8-Booth-Screen.pdf> accessed 5 March 2023.

can occur. Regulation, in this situation, may address these issues by supplementing the common law of the agency.

An increase in regulation emerged with the introduction of the "economic theory of regulation", followed by a rise in regulatory activities across many fields which peaked in the 1980s and 1990s. As such, there is no single consensual meaning of regulation, we consequently find a variety of definitions. Well known are three meanings presented by Baldwin and others. The first concept presents regulation as a specific form of "the command", where the regulatory agency provides a set of rules for monitoring and enforcement purposes. A second meaning – broader than the first – relates to state influence, where state agencies seek to steer the economy. The last meaning encompasses 'all mechanisms of social control – including unintentional and non-state processes – as forms of regulation'.[3] In line with the difference between the above approaches, the first two are used mainly by political scientists, economists, and lawyers, whereas the last is favoured by socio-legal scholars. On the other hand, Selznick presents a more cross-disciplinary definition of regulation as:

'sustained and focused control exercised by a public agency over activities that are valued by the community'.[4] Black, however, extended this definition by excluding social norms, cultural views, and market forces, and proposing that regulation is

> 'the sustained and focused attempt to alter the behaviour of others according to defined standards and purposes with the intention of producing a broadly identified outcome or outcomes, which may involve mechanisms of standard-setting, information-gathering and behaviour modification'.[5]

Regulation also plays a vital role in society as it makes laws and rules that integrate people and businesses. For example, in the UK, people are entitled to seek legal remedies in court under the general law and regulations above and beyond the public law.

But it is not only the regulatory landscape that is changing; the financial landscape too is experiencing a similar process. The industry is undergoing ongoing changes due to the transformation of existing businesses and new entrants to the market. In addition, the evolution of technology and innovation allows for improving financial services offered to consumers. However, this brings with it regulatory uncertainty as current regulations might not be adequate for businesses in light of the fast-changing financial environment and digitalisation. But not everyone is optimistic about regulations. Wood

[3] Robert Baldwin, Colin Scott and Christopher Hood, 'A Reader on Regulation' in Robert Baldwin, Colin Scott and Christopher Hood (eds), *A Reader on Regulation* (Oxford University Press 1998) 2–3 <https://academic.oup.com/book/10561/chapter/158497843> accessed 7 March 2023.

[4] Philip Selznick, 'Focusing Organisational Research on Regulation' in Roger G Noll, *Regulatory Policy and the Social Sciences* (1st edn, University of California Press 2023) 363 <http://www.jstor.org/stable/10.2307/jj.2430765> accessed 10 March 2023.

[5] Julia Black, 'Critical Reflections on Regulation' (2002) 27 Australian Journal of Legal Philosophy 20 <http://www.austlii.edu.au/au/journals/AUJlLegPhil/2002/1.pdf> accessed 10 March 2023.

argues that 'regulation acts as a barrier to innovation and to new entry'.[6] Given this, it is appropriate to consider the objectives of and rationale for regulations so as to judge the purpose of regulations and whether they are indeed necessary.

2.2 The History of Agency

The term "agency" is understood as a relationship that arose between an agent and a principal. As described by Beebeejaun,

> 'an agency is a bilateral, onerous, consensual contract whereby one party, the principal, authorises another, the agent, to execute business on his behalf'.[7]

There is also the third part to transactions – originally known as "the third party" – with whom the agent enters into a legal relationship on behalf of the principal. Under the common law of agency, the relationship between the parties was based on the private agreements between them – the agency agreement between principal and agent and the contract between the principal and third party.

It is believed that agency law began to be recognised as a part of common law in the thirteen century as a development of the master/servant relationship. This may be ascribed to three main factors that facilitated the historical development of the theory of agency in the common-law system. First was the impact of canon law; medieval canonists expanded the theories of representation and jurisdiction which influenced the development.[8] Second was the evolution of the class of attorney in legal matters during the mid-Twelfth and Thirteenth Centuries. The attorney worked on behalf of his principal by presenting the pleadings and representing him in court. This was very advantageous for wealthy landowners who were often involved in various suits and found it difficult to appear in court personally.[9] Finally, was the development of custom merchants following a significant increase in trade across Europe and which laid the foundation for certain concepts in agency.

All these aspects allowed further shaping of mercantile law and an upsurge in commercial activities which helped develop the common-law concept of agency. The rules of agency started to be organised and collected from the various places where transactions had a place. Further development of trading companies and the necessity of acting through agents in the fourteenth and fifteenth centuries helped

[6] Geoffrey E Wood, 'Too Much Regulation?' (2001) 9 Journal of Financial Regulation and Compliance 351, 351.
[7] Zeenat Beebeejaun, 'Law of Agency: Agents and Authorisation' in Yvonne McLaren and Josephine R Bisacre (eds), *Commercial Law in a Global Context* (Goodfellow Publishers Ltd 2016).
[8] William W Bassett, 'Canon Law and the Common Law' (1978) 29 Hastings Law Journal 1383.
[9] Oliver Wendell Holmes, 'Agency. II' (1891) 5 Harvard Law Review 1.

increase the meaning of agency. Then, new classes of agent were created under mercantile law, known as brokers and factors. Brokers were simply the intermediaries between seller and buyers, whereas factors were employees of the master and, as opposed to brokers, had the right to sell the goods in their own name.[10] With the wider recognition of agency contracts in the common law, the clear distinction started to create a relation between principal vs agent and master vs servant. The differences arose as, unlike the servant, the agent is not the servant or employee of the principal. However, agency and employment may co-exist – an employee may act as an agent for the employer based on the agreement between them and the roles assigned in the contract. The more usual situation is for an agent to be engaged through a "contract for services" as opposed to one of employment.
Further, after 1697 trading in stock, bonds, and government securities grew in financial services in London, mainly in coffee houses such as Exchange Alley and Royal Exchange. At that time there was no distinction between two visible positions in the financial market: brokers (who acted as agents and charge brokerage) and jobbers (modern market-makers). Also, in light of subsequent increased focus on the market, the Act[11] was passed. Despite the title, it related primarily to brokers. The Act introduced a few standards, such as requirements to record the transactions, fix and set maximum commission levels, mandatory licensing, and limiting the number of brokers to 100. Additionally, fines were introduced for acting as a broker without a licence. The Act was not renewed in 1707 and was replaced in 1708, when the limit on active brokers was removed. As noted by Cope, regulatory power was ineffective, and many brokers acted without a licence or acted simultaneously as brokers and principals.[12]

By the early twentieth century, use of the telephone to conduct business had virtually replaced floor trading on the stock exchange. Brokers could contact and trade with large investors such as banks using quotes from jobbers from the floor of the stock exchange. On the other hand, jobbers were cutting out the brokers by doing business with non-members. This led to a conflict of interest between jobbers and brokers and increased competition. Jobbers were driven mainly by profit from the spread between buying and selling securities, while brokers had a fiduciary duty to act in the client's best interests. To preserve the members' advantages of accessing the stock exchange trading floor and current market prices, in 1909 the members were formally prohibited from acting in a "dual capacity".[13] Not long after, minimum commissions were introduced in 1912. These two new rules

[10] *George v Claggett and Pratt* (1797) 2 Espinasse 557, 170 E.R. 454.
[11] William III, '1696-7: An Act to Restraine the Number and Ill Practice of Brokers and Stock-Jobbers. [Chapter XXXII. Rot. Parl. 8 & 9 Gul. III. p.11.Nu.1.]', *Statutes of the Realm*, vol 7 (British History Online 1695) <https://www.british-history.ac.uk/statutes-realm/vol7/pp285-287.> accessed 20 October 2022.
[12] SR Cope, 'The Stock Exchange Revisited: A New Look at the Market in Securities in London in the Eighteenth Century' (1978) 45 Economica 1.
[13] Christopher Bellringer and Ranald Michie, 'Big Bang in the City of London: An Intentional Revolution or an Accident?' (2014) 21 Financial History Review 111.

presented a challenge to the role of the stock exchange. The banning of the dual-capacity model, however, was largely unsuccessful. The stock exchange itself did not know what actual jobbers were doing and the jobbers retained many contacts and built even stronger relationships with outside connections. For a nominal fee, even brokers were permitted to pass their business through their books. The status quo persisted until 1987 and was abandoned only after the "Big Bang" as the deregulation of the market was known. Increasing development in technology and the internationalisation of the securities business also had an impact[14] and since 1987 all firms have been able to act as brokers and jobbers without further restriction. The minimum commission was also abolished. The introduction of dual capacity again blurred the line and raised the possibility of a conflict of interest. To mitigate these conflicts and uphold investor trust, regulators implemented additional rules for managing conflicts – eg, disclosure requirements and firewalls – between different functions within firms.

2.2.1 Who is an agent?

It is worth looking back and reconsidering the meaning of the term "agent". The word comes from the Latin "agere" which means "to act". It defines the agent as the person who acts for another and may be used to refer to various kinds of activity. The well-known Latin maxim states: "*Qui facit per alium, facit per se*" – "he who acts through another, acts himself...". This dictum, however, implies that despite the agent working on the principal's behalf, it is as if the principal is acting himself.[15] In 1897 Lord Herschell recognised the difficulties surrounding the term "agent". He noted:

> 'No word is more commonly and constantly abused than the word agent. A person may be spoken of as an "agent", and no doubt in the proper sense of the word may properly be said to be an "agent", although when it is attempted to suggest that he is an agent under circumstances as create the legal obligations attaching to the agency that use of the word is only misleading'.[16]

A similar view on misunderstanding the logical and practical relation between a buyer and an agent was highlighted by Greer LJ in *WT Lamb and Sons v Goring Brick Co Ltd*[17]. Further, in the case *Potter v Customs and Excise Commissioners*, dealers of Tupperware products signed the agreement declaring that they were "independent agents". Based on the facts, the court held that the matter could not be decided on the basis of what the parties chose to call themselves. Sir John Donaldson noted that:

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[14] Ranald Cattanach Michie, *The London Stock Exchange: A History* (Oxford University Press 1999).
[15] Beebeejaun (n 7).
[16] *Kennedy v De Trafford* (1897) AC 180 at 188.
[17] *WT Lamb and Sons v Goring Brick Co Ltd* (1932) 1K.B. 710.

> 'the use of word "agent" […] is wholly uninformative of the legal relationship between the parties, and the use of the words "independent agent" takes the matter no further'.[18]

Over time, the term "agent" evolved to recognise different forms of "agent" both domestically and in European legislation.[19]

2.2.2 The main principles of agency

The theory of agency is based in common law. It states that the principal enters into a direct contractual relationship with a third party via its agent and renders the principal personally liable for all goods bought or acquired by the agent on his or her behalf and with his or her approval. Based on this principle, the principal bears liability for the decision taken by his or her agent in dealings with a third party. This rule emerged from the 1389 case *Costace v Forteye*. The conflict arose between the French merchant and the master (principal) of the apprentice. The apprentice (agent) was sent to buy wine from a French merchant for his master (principal). No repayment was made to the seller, and the apprentice was committed to prison. The apprentice alleged that he had acted on behalf of his master who had approved the bargain. The Major, a judicial authority in the City of London, ordered the master to pay the total amount to the French merchant and set the agent free. The judge's ruling was based on his finding that the purchase of wine was for the benefit of the principal. A similar approach is described by Holdsworth:

> 'the common law also recognised that on such contracts the principal and not the agent was liable, not only when the agent had express authority to do the particular act, but also when he acted within the scope of an authority to do acts of a particular kind'.[20]

This is an important principle of the law of agency. While it may manifest in the form of consent given to the agent by the principal[21], the principal may also be liable in tort for all decisions or acts within the agent's mandate. However, the general principle applied here is that the agent acting without or exceeding[22] his authorisation does not bind the principal. This will influence the legal relationships between parties. The case of *Lloyd v Grace Smith & Co*[23] shows that a principal takes

[18] *Potter v Customs and Excise Commissioners* (1985) STC 45 (UKCA.
[19] In the 1995 European Law introduced new species of agent called 'commercial agent' under Council Directive of 18 December 1986 on the coordination of the laws of the Member States relating to self-employed commercial agents (86/653/EEC) (OJ L 382/17).
[20] William Searle Holdsworth, *A History of English Law*, vol 8 (Little, Brown and Company 1926) 223.
[21] Per Lord Pearson in *Garnac Grain Co Inc v HMF Faure and Fairclough Ltd* (1968) AC 1130., 'the relationship […] can only be established by the consent of the principal and the agent'.
[22] See *Overend & Gurney v Gibb* (1871) LR 5HL 480., where agents carry out express instructions in form of acquisition the new business as instructed by their principal, who later sued them for execution of the transaction.
[23] *Lloyds (Pauper) v Grace, Smith & Co* (1912) A.C.716.

responsibility for fraud committed by his or her agent acting within the scope of his authority and who dishonestly sold the property for his own benefit.

In agency context authority manifests in three different forms: express, implied, and apparent. Express authority is where the principal gives the agent full instructions on what to do or how to act – eg, to buy 100 stocks of a specific company at an agreed price. The agent may receive this authority orally, in writing, by deed, or under seal.[24] Implied authority generally arises from contractual terms in the agreement between principal and agent and is also known to others. This is clear from *Hely-Hutchinson v Brayhead Ltd*[25] where the managing director was authorised to do things that fall under the usual scope of his or her office. Apparent or ostensible authority arises when the principal shows by word or action that authority has been granted to the agent. Authority cannot be created by false representation by an agent to a third party as in the case *Armagas Ltd v Mundogas (The Ocean Frost case).*[26]

In the case of liability, a distinction must be drawn between the investor and the investment intermediary. Hence, if an intermediary acted on the investor's behalf, he or she was recognised as the investor's agent. However, not all intermediaries were the agents of the investor. Where intermediaries hold themselves as the representative of the investment provider, then the agent could not be recognised as an agent of the investor and fulfil the principal-agent relationship and the associated obligation. Lord Denning confirmed this approach: 'the general principle is, of course, that a person who makes a contract ostensibly as an agent cannot afterwards sue or be sued upon it'.[27] This situation does not apply if the agent acts for an undisclosed principal, as he or she becomes one party to the contract until the principal chooses to be disclosed. This aside, personal liability may apply by express terms included in the contract or by trade custom.[28] An interesting form offered by the agencies was credit insurance, so-called - *del credere* – where the agent has taken extensive liability to the principal, often for double commission. This has a long history and appears in different forms such as guarantees, documentary credit, or export credit. It is however rarely used today due to economic considerations of the agent taking additional risks. Modern businesses prefer other methods of managing credit risk such as using insurance.[29]

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[24] David Fox and others, *Sealy and Hooley's Commercial Law: Text, Cases, and Materials* (6th edn, Oxford University Press 2020).
[25] *Hely-Hutchinson v Brayhead Ltd* (1968) 1 QB 549.
[26] *Armagas Ltd v Mundogas* (1986) AC 717.
[27] *Phonogram Ltd v Brain Lane* (1982) 3 C.M.L. 615 at 23.
[28] *Hutchinson and Others v Tatham and Others* (1873) L.R. 8 C.P 482; *Henry Courthorn Dale, William Henry Morgan and Thomas Morgan v Charles Humfrey* (1858) 120 E.R. 783; *Fleet and Another v Murton and Another* (1871) L.R. 7 Q.B. 126.
[29] *Mercantile International Group Plc v Chuan Soon Huat Industrial Group* (2002) 1 AII ER (Comm) 788 at [40]., where LJ. Rix said: 'A del credere agent is one who guarantees the piece of goods purchased by a third party'.

2.2.3 Duties of the agent to the principal

The legal relationship between principal and agent can be examined from two perspectives. First, when duties arise under written contracts with provisions agreed to by the parties; and second, when equitable rules arise for the principal by using the special position of the trust assigned to the agent by the law of agency. McCardie J highlighted the distinction between the rights and duties of buyer and seller vs principal and agent. He stated that:

> 'The position of principal and agent gives rise to particular and onerous duties on the part of the agent, and the high standard of conduct required from him springs from the fiduciary relationship between his employer and himself'.[30]

A classic example is found in the *Armstrong v Jackson* case where the conflict of interest between parties was presented when a stockbroker sold his shares to a client without disclosing the information. Lord Cairns summed up the breach of the agent's duty: 'No man can in this Court, acting as an agent, be allowed to put himself into a position in which his interest and his duty will be in conflict'.[31]

In relation to the first part of the obligations arising for agent to his or her principal is the duty to carry out the full instructions provided to him or her under the general terms of the contract with reasonable care and due diligence. It is worth noting that the terms of the contract may be in some instances modify, exclude, or incorporate additional sections. However, based on the general rule, the agent is obliged to carry out lawful instructions issues by the principal. This can be clearly seen in *Turpian v Bilton*[32] where a shipowner's agent failed to arrange the insurance for the vessel as was instructed by the principal under the contract. When the vessel was lost at sea the agent was held liable for the loss. However, an agent is also not obligated to perform any void or illegal act on behalf of the principal as noted in *Cohen v Kittell.*[33] Every instruction must further be performed within a reasonable time[34] unless otherwise specified in the agency agreement.

[30] *Armstrong v Jackson* (1917) 2KB 822, 826.
[31] *Parker v Mckenna* (1874) L.R. 10 Ch. 96, 118.
[32] *Turpian v Bilton* (1845) 5 Manning and Granger 255. Similar cases are *Dufresne v Hutchinson* (1810) 3 Taunton 117; *Williams v Evans* (1866) LR1 QB 352.
[33] *Cohen v Kittell* (1889) 22 Q.B.D 680.
[34] See *Barber v Taylor* (1893) 5 M. & W. 527. The agent did not release the bill of landing in reasonable time [as stated by the judge 'within 24 hours of the good's arrival'].

The agent is also obliged to exercise due care, skill, and diligence if the agency contract is recognised, and a reward is stated in the contract. In the *Solomon v Barker*[35] case, action was instituted against a careless broker who sold the principal's goods for a lower value without valuation approval. Similarly, the breach of the agency duty of care was highlighted in *Alexander & Co v Wilson, Holgate & Co* where the agent failed to comply with instructions to arrange the immediate sale of a cargo of groundnuts. The delayed sale – after the collapse of the market – resulted in a considerable loss for the principal.[36] The agent is also under a duty to provide information about any contracts made on his behalf.[37]

The second leg of the obligation – which is not derived from the agreement but is attached to the agent – is the equitable rule of acting as a fiduciary. Miller LJ stated in *Bristol & West BS v Mothew:*

> 'A fiduciary is someone who has undertaken to act for or on behalf of another in a particular matter in circumstances which give rise to a relationship of trust and confidence. The distinguishing obligation of a fiduciary is the obligation of loyalty. The principal is entitled to the single-minded loyalty of his fiduciary'.[38]

From this perspective, the agent is responsible for any obligations that fall under the contract terms. Moreover, the agent is the fiduciary and bears the responsibility for all equitable duties. These include: the duty of disclosure;[39] the duty of not taking advantage of his or her position;[40] the duty to account; the duty not to take bribers or secret commissions; and duty not to allow a conflict of interests with the principal.[41] The last instance shows clearly that the fiduciary owns the duty of loyalty, including the duty to act *bona fide* for the benefit of the principal. A classic example can be found in *Aberdeen Railway Company v Blaikie Bros* where Lord Cranworth stated:

> 'It is a rule of universal application, that no-one, […] shall be allowed to enter into agreements in which he has, or can have, personal interests conflicting, or which possibly may conflict, with the interests of those whom he is bound to protect'.[42]

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[35] *Solomon v Barker* (1862) 2 Foster and Finlason 726.
[36] *Alexander & Co v Wilson, Holgate & Co Ltd* (1923) 14 L1 L Rep 538.
[37] *Johnson v Kearley* (1908) 2 K.B. 514.
[38] *Bristol and West Building Society v Mothew* (1998) Ch 1.
[39] *Rhodes v Macalister* (1923) 29 Com Cas 19. The agent should make all necessary disclosure to the principal regarding any kind of remuneration from the third party.
[40] *Thomson v Meade* (1891) 7 TLR 698., Clearly shows the equitable rules that the agent is not entitled to make a profit without the principal's knowledge. In this case the stockbroker kept the difference from acquiring shares at lower price than agreed to with principal.
[41] *Barry v Stoney Point Canning Co* (1917) 55 S.C.R. 51-Justice Anglin [73]. 'The fundamental principle in all these cases is that one contracting party shall not be allowed to put the agent of the other in a position which gives him an interest against his duty.'
[42] *Aberdeen Railway Co v Blaikie Bros* (1854) 1 Macq 461.

It is worth noting that there is no separate fiduciary duty of care, but more than likely, the breach in negligence will be upheld. One example of the claim of fiduciary duty is seen in *Lloyd's Bank Ltd v Bundy.*[43] An elderly farmer and long-time customer of Lloyds' Bank, offered his house and farm as security to guarantee an overdraft over his son's business. When the son's business failed, the bank sought to take back the guarantee and attempted to sell the farmer's house. The defendant pleaded that the bank owned him a fiduciary duty and was in breach of it by not advising him to take independent advice. The court held that despite the transaction being on the basis of a business relationship (where there is no trust and confidence, but pure business), an ad hoc fiduciary relationship existed as the bank manager admitted that the farmer relied implicitly and solely on the advice given by the bank and that the defendant had rusted the bank and acted on its advice.

The first sign of written equitable obligations was published in 1984 by the stock exchange. A guidance note was issued to exchange members containing a summary of fiduciary obligations which agents need to follow:

1. 'to act at all times in the best interest of the client;
2. To disclose all material facts to the client
3. Not without the fully informed consent of the client
    a. To place himself in a position where his duty to the client conflicts with his interest or his duty to another client; or
    b. To deal as a principal with the client; and
4. Not to make a secret profit whether or not at the expense of the client'.[44]

2.3 The Objectives of Regulation

The objectives of regulation are a starting point in defining the rationale for regulations. One of the first places to look for the objectives of regulation is the Financial Service and Markets Act 2000 ("FSMA"). This Act is the principal piece of legislation that regulates financial services and markets in the UK. The FSMA also established the Financial Conduct Authority ("FCA") as the UK's primary financial regulator responsible for overseeing the conduct of financial firms and markets and promoting competition and consumer protection. The FCA also works closely with the Prudential Regulation Authority ("PRA") which oversees the stability of the UK's financial system. The FSMA presents the objectives for the first time, as the previous legislation – the Financial Services Act 1986 ("FSA") – was silent in this regard. The regulatory objectives provide high-level control in Part 1, section 2 of the Act, with explanation following later. The objectives include market confidence, public awareness, the protection of consumers, and the reduction of financial crime. The promotion

[43] *Lloyd's Bank Ltd v Bundy* (1975) 1 QB 326.
[44] London Stock Exchange, 'The Stock Exchange, The Conflict of Interest and Their Regulation' s 2.1.

of competition and the international competitiveness objectives are also considered. Maintaining financial stability objectives under the PRA is also highlighted as promoting safe and sound financial institutions.

The first objective addresses promoting and maintaining confidence in the financial system. The financial system per the Act includes financial markets and exchanges, regulated entities, and other activities connected with financial markets and exchanges.[45] The aim is to ensure that consumers and investors have trust and confidence in the financial system as trust is essential for the functioning of the markets. The FSMA requires a firm to operate responsibly and with complete transparency. This includes providing accurate information about products and services and avoiding misleading information in the marketing materials. Firms are also required to have appropriate systems and controls in place to manage risk and prevent financial crime. The FCA oversees compliance under the market confidence objective and can investigate and take enforcement action if rules have been breached. In addition, it may impose sanctions or restrict a firm's activities. The market confidence objective is vital in supporting economic growth by promoting trust and keeping the financial system stable.

The second objective of the FSMA is to promote public awareness of financial matters. This includes highlighting the benefits and risks associated with different forms of investment or other financial dealings and providing appropriate information and advice as stated in the Act.[46] The aim is to ensure that consumers can make the correct decisions about their finances. Therefore, firms are obliged to provide clear and accurate information about their products and services. This objective is achieved through several measures set out in the Act, such as promoting financial education regarding the financial system, ensuring fair advertising, providing consumer information, and promoting access to financial services.

The third objective relates to securing an appropriate degree of protection for consumers. In considering the appropriate degree, the authority must have regard to risk, expertise, consumers' need for advice, and the general principle that consumers should take responsibility for their decisions.[47] One of the ways of achieving this is through the regulation of financial services providers. The FSMA requires providers to be authorised and regulated by the Financial Conduct Authority ("FCA") or the Prudential Regulation Authority ("PRA"). Providers must meet specific standards and can be held to account for their actions. The FSMA also requires financial services providers to provide consumers

[45] Financial Services and Markets Act 2000, s 3(2).
[46] ibid 4.
[47] ibid 5.

with access to dispute resolution services, such as the Financial Ombudsman Services. Other measures focus on protecting consumers from fraud and, to this end, the FCA maintains a register of individuals and firms that have been involved in fraudulent activities. Again, measures are necessary to build consumer trust and confidence in the financial system.

The next objective focuses on lowering financial crime within the financial system by reducing the extent to which it is possible for a business carried on by a regulated person, or in contravention of the general prohibition, to be used for a purpose connected with financial crime. Financial crime includes any offence involving: (a) fraud or dishonesty; (b) misconduct in or misuse of information relating to a financial market; or (c) handling the proceeds of crime.[48] These provisions apply only to offences committed in the UK. The aim is to prevent financial crimes such as money laundering, fraud, and terrorist financing. The primary measure to achieve this objective is to have adequate systems and controls in place, such as reporting suspicious activities and coordinating with other agencies to prevent financial crime.

Further, the promotion of competition in the interests of consumers has gained prominence in the UK's financial regulatory framework. This objective aims to foster a healthy financial system that delivers better outcomes for consumers and businesses. This is possible by offering consumers a diverse range of financial products and services at competitive prices, encouraging innovations by lowering barriers to enter the market and reducing market inefficiencies.[49] The FCA has been given the secondary objective of promoting the UK's competitiveness and growth in the international financial markets, and it was introduced as a part of the post-Brexit financial strategy.[50] It aims to support the UK's position as a competitive global financial centre and encourage foreign participation in UK markets. To fulfil the objective, the FCA has implemented and supported several initiatives. One of them is the London Stock Exchange Listing Reforms, introduced by the FCA.[51] They include simplifying listing rules to attract innovative firms and introducing new measures like dual-class share structures and reduced free-float requirements, making it easier for high-growth firms to list on the LSE. These changes are designed and introduced to modernise the UK's capital markets, making them more attractive while maintaining investor confidence.

[48] ibid 6.
[49] ibid 1A s.1E.
[50] ibid 1A s.1EB.
[51] FCA, 'Policy Statement and the UK Listing Rules Instrument 2024, Primary Markets Effectiveness Review: Feedback to CP23/31 and Final UK Listing Rules' <https://www.fca.org.uk/publication/policy/ps24-6.pdf> accessed 10 December 2024.

The FSMA also mentions principles of good regulation which are set out in its section 2(3). They include using resources most efficiently and economically, facilitating innovation in connection with regulated activities, adjusting restrictions or burdens proportionate to the benefits, and maintaining the UK's competitive position in the international area.

Llewellyn, Goodhart, and Georgosouli offer exciting examples of objectives. They highlight three of these: to ensure systemic stability, to make financial institutions and markets dependable, and to protect investors.[52] IOSCO later presented the same objectives as the core objectives of securities regulation.[53] The objectives are all closely related and overlap in certain regards. They create pillars for the regulations based on which measures, requirements, and standards are set up to regulate the market and manage the risk effectively.

The first objective relates to reducing systemic risk and is, in the main, associated with financial institutions. The global financial crisis (GFC) has shown that turbulence in the markets can have a significant impact on the real economy. Even small financial institutions can give rise to systemic instability. They are all interconnected, hence in case of contagion, it will be spread across the system, causing systemic damage. The regulatory changes for financial institutions were introduced following the global financial turmoil in 2008-2009 and were both globally and domestically relevant.

New reforms focused on increased capital requirements ("Basel III"), introducing a special resolution regime, improving derivative markets, strengthening accounting standards, putting systemic risk at the centre of financial regulation, and developing macro-prudential frameworks. This includes imposing systemic levies and surcharges under the new regulations. In summary, an improved regulatory system can contribute to the effectiveness of micro-prudential and then to macro-prudential regulation.[54]

The other situation linked to systemic risk is a question of liquidity. This occurs when a single institution does not hold sufficient liquid assets to meet the immediate demand for payment from their depositors, followed by insolvency within a short period. It is worth adding that banks hold only a fraction of all deposits as the rest is invested in different forms of credit such as mortgages,

[52] Charles AE Goodhart and others (eds), *Financial Regulation: Why, How and Where Now?* (1st edn, Routledge 1998); David Llewellyn, 'The Economic Rationale for Financial Regulation' [1999] FSA Occasional Papers in Financial Regulation 1 9; Andromachi Georgosouli, 'The Debate over the Economic Rationale for Investor Protection Regulation: A Critical Appraisal' (2007) 15 Journal of Financial Regulation and Compliance 236.

[53] The International Organization of Securities Commissions (IOSCO), 'Methodology for Assessing Implementation of the IOSCO Objectives and Principles of Securities Regulation' <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD562.pdf> accessed 5 March 2018.

[54] Nishadi Thennakoon, 'Rationale of Financial Regulation: Facts vs. Myths' [2020] Daily FT Sri Lanka <https://ssrn.com/abstract=3703031> accessed 5 March 2018.

commercial paper, and bonds. If banks become insolvent due to a "run on the bank", contagion can spread across other financial institutions. A banking failure can be described as having "a domino effect". In the absence of a safety net, banks may be prone to runs. This could start a chain reaction that can spread from one institution or market to another. On occasion the individual situation may spill over to other financial-institution sectors and lead to a full-scale crisis.[55]

This objective is also closely linked to investor protection; however, proper risk management is essential to ensure stability in the financial markets. There is a low probability that the failure of a single institution will lead to a systemic problem and if systemic failures occur, the cost could be high.[56] According to Greenspan: 'there will always exist a remote possibility of a chain reaction, a cascading sequence of defaults that will culminate in financial implosion if it is allowed to proceed unchecked'[57]. Systemic regulation is needed when the social cost of a bank's failure exceeds the private cost. In most countries the central bank is responsible for overseeing the financial sector and acts as a safeguard against systemic risk. It then works as a "lender of last resort" for other banks to ensure that other financial institutions have sufficient capital for ordinary business. This is termed the "safety net".

The second objective applies to financial institutions and markets as they should work in collaboration. One of the necessary factors is to ensure effective competition within the market, as well as prevent monopolies from developing. Other factors are aimed at keeping the market open and transparent for all market participants. Competition helps to run the market properly and will guarantee that consumers will build their trust and confidence to invest in financial markets. However, these factors will help keep individual institutions' financial soundness, not the financial system as a whole. If individual investors entrust their money to financial institutions, they need to believe that the institutions are safe and secure. The second objective is also closely linked to investor protection. If trading standards and practices are followed, improper behaviour will have no place in the market. Investors should have fair access as participants in the market, and any forms of manipulation should be detected and penalised by regulators. Market efficiency is vital, and regulations should promote that.[58]

Investor protection is recognised as the third objective of regulation. There are two main reasons for this. The first relates to the firm's conduct of business and how it treats investors. If the standards of

[55] Olivier De Bandt and Philipp Hartmann, 'Systemic Risk: A Survey' [2000] European Central Bank Working Paper 10.
[56] Goodhart and others (n 52) 4–8.
[57] Alan Greenspan, 'Remarks at VIIIth Frankfurt International Banking Evening' (1996) <https://fraser.stlouisfed.org/files/docs/historical/greenspan/Greenspan_19960507.pdf> accessed 26 July 2018.
[58] The International Organization of Securities Commissions (IOSCO) (n 53) 10–11.

business conduct are not followed, it may lead to market abuse to the detriment of investors – eg, the misrepresentation or sale of inaccurate products. The conduct of business regulation is necessary for firms; it provides guidelines and rules for appropriate behaviour in dealing with customers. Based on the conduct rules, investors should be protected from fraudulent and misleading practices. In case of misconduct, a market participant needs to have access to the courts, neutral mechanisms, or the opportunity to apply for redress to receive compensation for the company's inappropriate behaviour. However, proper enforcement systems need to be in place to protect investors if more people are affected. Second, there is always the possibility that the company holding investors' money may experience liquidity problems or difficulties. At this point, protection is required to ensure investors will not lose their money.[59]

Various authors have highlighted the need for consumer protection, arguing that many customers lack the fundamental financial knowledge and skills to make basic investment decisions. Also, the consumer experience is essential for financial institutions – if clients enjoy their experience they are open to investing more and building trust in the financial system. Additionally, transparency and full disclosure of information to the investor by a firm is key. By having all the information, the investor is able to assess the potential risks and decide on further investments while protecting his or her own interest.

Benston claims that rational regulation of financial products is the key factor in protecting retail consumers. Information asymmetry is the main point here, as service providers or producers have greater financial information than consumers. The principal results of market failure are crises, bank failures, and loss for the consumer.[60]

The above objectives are all interconnected and interdependent. Nevertheless, they are the first step in setting up the sound regulations and creating an efficient market.

2.4 From Objectives of to the Rationale for Regulation

Having discussed the objectives of regulation, attention needs to turn to the problems and issues that need to be resolved if these objectives are to be achieved. One also needs to think about why regulation is necessary if the problems are to be overcome. Baldwin, Cave, and Lodge point out that

[59] Goodhart and others (n 10) 5.
[60] George J Benston, 'Consumer Protection as Justification for Regulating Financial-Services Firms and Products' (2000) 17 Journal of Financial Services Research 277.

'regulation in such cases is argued to be justified because the uncontrolled marketplace will, for some reason, fail to produce behaviour or results in accordance with the public interest'.[61] This view was shared and confirmed by the Warwick Commission Report where it is stated that: 'we regulate finance over and above the way we regulate other industries because finance exhibits market failures that can have devastating consequences'.[62] In this case, market failure is recognised as the primary basis for regulatory intervention. Two main drivers are highlighted in the report: asymmetrical information; and social externalities. But there are also other failures. Llewellyn discusses the wider aspect of the rationale for regulations. The well-known components that make up the "economic rationale" for regulation are:

- externalities (bank failures and systemic problems);
- other market imperfections and failures;
- the need for monitoring of financial firms;
- the need for consumer confidence;
- potential for gridlock;
- moral hazard problem; and
- Consumer demand for regulation.[63]

2.4.1 Externalities

Externalities can be considered an example of market failure, resulting in markets not pricing certain risks which results in investor and market preferences being distorted. One of the justifications for financial regulation from an economic perspective is externalities which apply to banks' failures and systemic problems. The banks play a significant payment role within the financial system and provide a key lending source for both firms and consumers. Consequently, when banks are subject to a "run" this can negatively affect the financial system. The externalities may also have a contagion effect. As a result, an insolvent bank's failure can lead to depositors withdrawing funds from other institutions. The institutions become insolvent as the value of their assets decrease due to financial uncertainty and asymmetric information problems. Furthermore, most of the banks' assets are not readily marketable. This means that prudential regulation is essential in ensuring that the financial market works safely and soundly. According to Llewellyn:

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[61] Robert Baldwin, Martin Cave and Martin Lodge, *Understanding Regulation: Theory, Strategy, and Practice* (2 edn, Oxford University Press 2011) 30.
[62] Warwick Commission Report, 'The Warwick Commission on International Financial Reform: In Praise of Unlevel Playing Fields' (2009) <https://warwick.ac.uk/research/warwickcommission/financialreform/report/> accessed 18 July 2018.
[63] Llewellyn (n 52) 8–9.

> ‘regulation for systemic reasons is warranted when the social costs of failure of financial institutions exceed private costs and such potential social costs are not incorporated in the firm's decision-making. Banks may be induced into more risky behaviour than they would if all risks were incorporated in their pricing.’[64]

Prudential regulation can be viewed as ‘an insurance premium against low-probability-high-seriousness risk to a systemic problem’. As Greenspan has stated:

> ‘there will always exist a remote possibility of a chain reaction, a cascading sequence of defaults that will culminate in financial implosion if it is allowed to proceed unchecked.’[65]

Systemic issues have always been associated with banks due to their pivotal position within the financial system, the nature of bank contacts, the potential danger of bank runs, and moral hazard situations linked with having safety net positions from the lender of last resort (the Central Bank) as well as deposit insurance. This situation may lead to more risky activities by financial institutions and investors taking greater risks because they will be compensated if things go wrong. This moral-hazard approach is also recognised as a separate rationale for regulation. Prudential regulation plays an important role in ensuring that the financial system is resilient, stable, and able to cope with potential shocks. According to Benston, withdrawing from mutual funds and financial service providers other than banks will not cause systemic risk in securities markets. The run by owners on mutual funds will not lead to their collapse – at most the firm may fail. Therefore, losing one or more securities firms cannot create a systemic problem. A classic example is when an investor makes assumptions about a provider's bad situation and stops doing business with that firm, shifting his or her securities to a “safe” firm. This will have no impact on the securities market.[66]

Further, climate change can be considered an externality in finance. In this case, market failure occurs as the costs and benefits of economic activity related to climate change are not fully reflected in the prices of goods and services. An example is greenhouse gas emissions (“GHG”), as the associated costs are not fully covered by the entities responsible for them but rather are imposed on society and the environment leading to what is known as a “negative externality”.[67] However, the issue of climate change, and closely related, carbon pricing,[68] has increased globally over the last decades. In addition, international cooperation became more visible after the Paris Agreement which proposed voluntary

[64] ibid 13.
[65] Greenspan (n 57) 8.
[66] Benston (n 60) 281–282.
[67] Wim Carton, ‘Environmental Economics’ in Noel Castree, Mike Hulme and James D Proctor (eds), *Companion to Environmental Studies* (Routledge, Taylor & Francis Group 2018) 281–285.
[68] Cecile Remeur, ‘Carbon Emissions Pricing’ (European Parliamentary Research Service 2020) <https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/649352/EPRS_BRI(2020)649352_EN.pdf> accessed 1 May 2023.

cooperation among parties to implement Nationally Determined Contributions ("NDCs"), including long-term sustainable development and environmental integrity.[69] As a result, the financial industry started to recognise the need to address climate change as an externality and integrate all related climate risks into the financial decision-making process and promote transparency. These steps and efforts are aimed at achieving a low-carbon, climate-resilient economy. The changes are also reflected in legislation. Climate change is being integrated into financial regulation, reflecting a growing recognition of the financial risks associated with the phenomenon. One example is the climate stress tests required by banks and insurance companies to assess the potential impact of climate change.[70] Recently, the Bank of England issued a report on climate-related risks and the regulatory capital framework.[71] It suggested that current gaps in the regime create uncertainty as to whether banks and insurers are sufficiently capitalised in relation to losses resulting from climate change. Currently, no specific regulations or policy changes have been introduced but regulators are closely monitoring the climate risks and their impact on financial stability.

2.4.2 Other market imperfections and failures

The FSA states that: 'a principal aim of the regulation is to deal with market failures. These have manifested themselves in the distribution of retail investment products'.[72] Hence, the second economic rationale for regulation relates to market imperfections and failures. If the market works efficiently with perfect competition in place and a lack of externalities, then regulations will not be needed. However, if there are market imperfections the people most affected are investors who must handle all costs associated with an unregulated market. As the market is rarely perfectly competitive, regulations are needed to mitigate the imperfections and help the market work more efficiently. Unfortunately, there are many market imperfections and failures where inadequate information is provided to investors.

[69] Gregor Erbach, 'The Paris Agreement A New Framework for Global Climate Action' (European Parliamentary Research Service 2016) <https://www.europarl.europa.eu/RegData/etudes/BRIE/2016/573910/EPRS_BRI(2016)573910_EN.pdf> accessed 3 May 2023.

[70] The Bank of England, 'Results of the 2021 Climate Biennial Exploratory Scenario' <https://www.bankofengland.co.uk/-/media/boe/files/stress-testing/2022/results-of-the-2021-cbes.pdf> accessed 5 May 2023.

[71] The Bank of England, 'Bank of England Report on Climate-Related Risks and the Regulatory Capital Frameworks' (2023) <https://www.bankofengland.co.uk/prudential-regulation/publication/2023/report-on-climate-related-risks-and-the-regulatory-capital-frameworks> accessed 25 May 2023.

[72] FSA, 'A Review of Retail Distribution' (2007) 07/01 15 <https://www.fca.org.uk/publication/discussion/fsa-dp07-01.pdf> accessed 4 October 2018.

One of these problems is information asymmetry between advisor and investor. This relates to an imbalance in information where buyers receive less information than sellers regarding financial services. Advisors can use the situation to exploit their consumers by imposing higher agency costs and selling inadequate products which pose a higher risk for investors. Many authors[73] have highlighted the bad behaviour of advisors who have recommended hidden product quality or made unrealistic promises. The problem of hidden quality illustrates the situation where customers need help in judging the knowledge, skills, and potential of advisors.

The impact on the quality of the information provided to investors can also affect the nature of the relationship between a financial advisor and a product provider. The service provider has greater financial knowledge about selling products than the advisor who, in turn, has greater knowledge than the customer. This situation may reflect information asymmetry handed down to the investor.[74] According to Leland and Pyle, 'numerous markets are characterised by informational differences between buyers and sellers'[75]; however, as they state, 'without information transfer, markets may perform poorly'.[76] This is reflected in the poor quality of products offered to investors, leading to an adverse selection of products and inadequate allocation of resources.[77] This situation has a place when consumers need more information about products purchased and cannot judge investment quality. An adverse selection problem occurs when the buyer or seller has more information on the product of which the other party is unaware. Unequal information leads to market failure as the seller has a different quality of information and can observe the quality of each unit of goods he or she sells.[78]
This problem is highlighted by Akerlof[79] who shows how prices can determine the quality of products traded in the market with reference to the market for "lemons". This happens because customers judge the quality of a product by its price so driving higher quotes. Due to asymmetric information, customers cannot choose between high- and low-quality products or services. This results in poorer quality products having higher valuations resulting in removing high-quality products from the market. As a result, this can lead to an adverse selection problem which can, in turn, lead to a market

[73] Andreas Oehler and Daniel Kohlert, 'Financial Advice Giving and Taking—Where Are the Market's Self-Healing Powers and a Functioning Legal Framework When We Need Them?' (2009) 32 Journal of Consumer Policy 94–95.
[74] Davis Howard, 'Why Regulate?, Speech in Henry Thornton Lecture, City University Business School' <http://www.fsa.gov.uk/Pages/Library/Communication/Speeches/1998/sp19.shtml> accessed 17 September 2017.
[75] Hayne E Leland and David H Pyle, 'Informational Asymmetries, Financial Structure, and Financial Intermediation' (1977) 32 The Journal of Finance 371.
[76] ibid. 371.
[77] Ricardo N Bebczuk, *Asymmetric Information in Financial Markets: Introduction and Applications* (Cambridge University Press 2003) 3–19.
[78] Charles Wilson, 'Adverse Selection' in John Eatwell, Murray Milgate and Peter Newman (eds), *Allocation, Information and Markets* (Palgrave Macmillan UK 1989) 31–34 <http://link.springer.com/10.1007/978-1-349-20215-7_2> accessed 11 March 2023.
[79] George A Akerlof, 'The Market for "Lemons": Quality Uncertainty and the Market Mechanism' (1970) 84 The Quarterly Journal of Economics 489.

collapse. Poor quality products shadow the good products. As a result, another role of regulation is to create minimum standard rules to eliminate potential "lemons" from the markets. Many papers have highlighted that poor standards and behaviour have impacted consumer confidence within financial institutions and called for a change in regulation to restore public confidence.[80] It is worth adding that a similar problem had been recognised in commercial insurance contract law before "modern" financial regulations were introduced. In this case, however, the insured is the one who has more information than the insurance company. In the UK there is already a "duty of disclosure" in the insurance sector[81] which has since been replaced by the "duty of fair presentation" under the Insurance Act 2015.[82] The Act requires the insured to provide the insurer with any information that it reasonably ought to know.

Additionally, due to the information asymmetry problem consumers cannot evaluate the quality of the product at the time of purchase or assess the safety of the financial institutions. There are two types of information asymmetry: hidden information and hidden intention. Furthermore, the complexity of the products and services and the low level of financial literacy and numeracy within the society result in a lack of confidence in the financial markets and consequent uncertainty.[83]

However, should consumers wish to evaluate the net benefit of purchasing a product independently, they must include all costs associated with obtaining additional information to make a "good" investment decision. However, in most cases the cost of analysed data and the time spent exceed the benefit of the product purchased. Hence, it would be better for consumers to rely on professional advisors or experienced firms.[84] On the other hand, this situation creates excessive duplication and high social costs in that each consumer will duplicate the work of others by searching for the same information.[85]

Information asymmetry also arises when the investor has been provided with the necessary information but needs greater financial knowledge to understand it fully. Per Inderst's research, there is a low level of financial acumen in the UK and the US. Many adults need to understand basic

[80] Personal Investment Authority (PIA), Financial Services Compensation Scheme, 'Consumer Panel, Annual Report, Mind the Gap: Restoring Consumer Trust in Financial Services' (1995) <https://www.fscs.org.uk/globalassets/press-releases/20151111-fscs-trust-white-paper-final.pdf> accessed 16 October 2018.
[81] First, occurred in ss 18, 19 and 20 of the Marine Insurance Act 1906.
[82] Insurance Act 2015 s 3.
[83] Elizabeth Clery, Alun Humphrey and Tom Bourne, 'Attitudes to Pensions: The 2009 Survey' (Department for Work and Pensions 2010) 701 <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214476/rrep701.pdf> accessed 10 October 2018.
[84] Benston (n 60) 290.
[85] David T Llewellyn, 'Regulation of Retail Investment Services' (1995) 15 Economic Affairs 12.

financial terms such as inflation or interest rate risk.[86] Agarwal and others have found that more educated individuals are less exposed to mistakes or errors in their financial decisions.[87] On the other hand, if the consumer has financial acumen, he or she can evaluate the quality of products on offer and the type of information required by advisors to make appropriate recommendations. Therefore, the consumer can easily identify incomplete or false information provided by the advisor. Another advantage is the possibility of comparing products offered by alternative providers and choosing the best offers.

The principal/agent problem is recognised as another form of market imperfection. This results from 'differences in the incentives of principal and agent, and the information available to principal and agent, and it is essentially the interaction between these issues that gives rise to difficulties'.[88] According to Moloney, 'imperfect information, weak monitoring, poor decision-making and excessive trust can expose investors to a series of risks from the principal-agent relationship […] and from the related incentive misalignment risk'.[89] The relationship between principal and agent is characterised by the information asymmetry mentioned above and often by limited client capabilities. This leads to a situation where there is a low probability of unmasking many issues associated with the information asymmetry problem. Additionally, the investor may be unable to monitor advice efficiency due to a poor understanding of the product. Moreover, the relationship between advisor and investor is also affected as financial advisors may recommend products issued by their banks rather than offering "better" products available in the market.

The dominant feature of the principal/agent problem is the fiduciary relationship that exists between investors and financial intermediaries whenever imperfect information is in issue.[90] There is also a challenge with the potential for conflict of interests. An example is the commission offered to advisors from product providers for selling specific products. This creates a conflict of interest between both parties as the financial advisor will recommend products which ensure him or her a high commission even if the products are not suitable for the client. Examples of these practices still exist in many markets, including the US and Australia.[91] In 2012 the UK FSA introduced the Retail Distribution

[86] Roman Inderst, 'Consumer Protection and the Role of Advice in the Market for Retail Financial Services' (2011) 167 Journal of Institutional and Theoretical Economics (JITE) 28th International Seminar on the New Institutional Economics — Business-to-Consumer Transactions 6.
[87] Sumit Agarwal and others, 'The Age of Reason: Financial Decisions over the Life Cycle and Implications for Regulation' (2009) 2009 Brookings Papers on Economic Activity 2.
[88] John Kay and others, 'Regulatory Reform in Britain' (1988) 3 Economic Policy 311.
[89] Niamh Moloney, *How to Protect Investors: Lessons from the EC and the UK* (1st edn, Cambridge University Press 2010) 194 <https://www.cambridge.org/core/product/identifier/9780511674808/type/book> accessed 11 March 2022.
[90] Georgosouli (n 52) 238.
[91] Adam Steen, Dianne McGrath and Alfred Wong, 'Market Failure, Regulation and Education of Financial Advisors' (2016) 10 Australasian Accounting, Business and Finance Journal 4.

Review, which prohibited the payment of commission to financial advisors. Under these changes, advisors are required to consider all products available in the market before making any recommendations.[92] Moreover, the adviser firms will be remunerated based on new charges agreed to with clients at the start of the advice process. This was seen to reduce the potential for remuneration influencing adviser recommendations, directly or indirectly.[93] In the current regulatory environment, the ban on the payments of commissions is still in place in MiFID II.[94] Although the UK adopted MiFID II as part of EU law before Brexit, the 'inducement' rules have been retained under the UK MiFID framework. These are visible in the FCA Conduct of Business Sourcebook (COBS).[95] The rules on 'inducements' aim to reduce conflict of interest and increase transparency.

The principles of fiduciary duties are difficult to reconcile in the relationship between clients and financial providers. However, this has been partially resolved in the UK by introducing a wider disclosure regime.[96] Additionally, the Conduct of Business regulation has been established to minimise the principal/agent problem by providing guidelines on appropriate practices in dealing with customers. According to Llewellyn:

> 'an informed judgement about the purchase of financial products and services cannot be made unless consumers know the true costs of the product, the precise nature of the product or contract, the basis upon which a financial product is offered or what the benefit is to an agent. These are real information costs to the consumer'.[97]

2.4.3 The need for monitoring of financial firms

Monitoring financial providers is another economic rationale. Customers invest their funds in particular products within investment firms. The investment can involve both long- and short-term products. In the long term, customers put their trust not only in the financial provider but also in the strength and ability of the financial market during the entire period of investment. However, there are also complex products where a continuous monitoring process is required as principal/agent problems or product quality cannot be accessed at the time of purchase. Based on the above, the value of

[92] FSA, 'Retail Distribution Review: Independent and Restricted Advice. Finalised Guidance' (FSA 2012) <https://webarchive.nationalarchives.gov.uk/ukgwa/20130423195424mp_/http://www.fsa.gov.uk/static/pubs/guidance/fg12-15.pdf> accessed 3 October 2017.
[93] FSA, 'Distribution of Retail Investments: Delivering the RDR' (2009) Consultation Paper 09/18 25 <https://www.fca.org.uk/publication/consultation/fsa-cp09-18.pdf> accessed 4 October 2018.
[94] Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments amending Council Directives 85/611/EEC and 93/6/EEC and Directive 2000/12/EC of the European Parliament and of the Council and repealing Council Directive 93/22/EEC 2004 (OJ L 145) art 24(9).
[95] FCA Handbook s COBS 2.3A, 6.1A.4R, 2.1.
[96] Gerard McMeel, 'International Issues in the Regulation of Financial Advice: A United Kingdom Perspective - The Retail Distribution Review and the Ban on Commission Payments to Financial Intermediaries' (2014) 87 St. John's Law Review 616.
[97] Llewellyn (n 52) 23.

products is more often determined by the behaviour of the investment firm after purchasing products on behalf of its clients. From the retail perspective, customers are not in a position constantly to monitor the supplier's behaviour. If the contract does not fulfil the client's expectations or fails, it will lead to losses for the consumer.[98] Llewellyn argues that:

> 'an important role of regulatory agencies is to monitor the behaviour of financial firms on behalf of customers. In effect, consumers delegate the task of monitoring to a regulatory agency, and hence, that agency can be viewed as supplying monitoring services to customers of financial firms'.[99]

Delegating the monitoring function to government agencies will bring social benefits as agencies have greater expertise and will minimise the social cost and duplication of the process. Additionally, the agencies can act and enforce requirements against financial providers if firms do not behave as required. Benston also notes that confidence in the financial market has increased since companies are supervised by government agencies.[100]

2.4.4 The need for consumer confidence

Consumer trust is an important factor in the financial system. However, as we saw earlier, confidence in financial products can decrease as a result of asymmetric information. Davies observes that 'without regulation to give consumers some independent assurance about the terms on which contracts are offered, the safety of assets which underpin them, and the quality of advice received, saving and investment may be discouraged, again with damaging economic consequences' [101] Financial scandals also generate a lack of trust in the financial system. According to various surveys,[102] trustworthiness is among the most important factors when choosing a financial advisor. On the other hand, Benston rejects the assumption that government regulation could increase consumer appetite to invest in securities. He shows that there is little evidence to support this view.[103] The main driver of investor interest in purchasing securities is their expectation of profiting from

[98] Goodhart and others (n 52) 8–10.
[99] Llewellyn (n 52) 24.
[100] George J Benston, *Regulating Financial Markets: A Critique and Some Proposals* (Institute of Economic Affairs 1998).
[101] Davis Howard, 'Financial Regulation: Why Bother?, Society of Business Economists Lecture, FSA' (FSA 1999).
[102] CFP Board, 'Certified Financial Planner Board of Standards' <https://www.cfp.net/docs/news-events---research-facts-figures/cfpboard2004conssurvey.pdf?sfvrsn=2> accessed 10 September 2017.;State Street Global Advisors, 'Bridging the Trust Divide: The Financial Advisor-Client Relationship' (2007) <https://knowledge.wharton.upenn.edu/wp-content/uploads/ssga_advisor_trust_Report.pdf> accessed 10 September 2017.
[103] Mahoney provided some supporting evidence, pointing out that some privately owned firms started providing additional information to clients to increase their confidence in trading. Benston (n 60) 299.

market movements due to price changes. The degree of regulatory scrutiny has a proven impact on market activity.[104]

2.4.5 Potential for gridlock

The financial markets will work effectively and efficiently when firms do not behave against consumer interests. One rationale behind this is the firm's reputation and trust. Nevertheless, the company's "bad behaviour" can arise in both long- and short-term investments as firms can try to increase their earnings by using hazardous behaviour in a way that customers will not be aware of it for some time. This situation can create a potential gridlock problem. According to Llewellyn:

> 'This can arise when all firms know how they should behave towards customers but nevertheless adopt hazardous strategies because they secure short-run advantages, and they have no confidence that competitors will not behave hazardously'.[105]

In this situation, additional problems can arise. First, adverse selection can emerge as good firms can lose their customers and potentially be forced out of business by bad firms. Second, moral hazard problems can arise as better firms can undertake the same bad practices to gain advantages over others. The problem of gridlock can be prevented by applying the regulations. In this case, all firms will behave similarly by applying similar standards.

2.4.6 Moral hazard

The last rationale for regulation relates to moral hazard and is linked to a "safety net", for example, lender of last resort (LLR) and deposit insurance. The moral hazard problem can apply to both firms and consumers. According to Dowd, 'a moral hazard is where one party is responsible for the interest of another but has the incentive to put his or her own interest first'.[106] Danielsson defines it similarly.[107] A safety net arrangement such as a lender of last resort can create adverse effects and lead to inadequate control and excessive risk-taking. Additionally, deposit insurance can also raise moral hazard problems. Consumers would be willing to choose the financial institutions offering the higher return on investment on more risky products as they will receive compensation when a bank fails. This situation has an adverse effect as the financial firms also will take greater risks because the

[104] ibid 284.
[105] Llewellyn (n 52) 27.
[106] Kevin Dowd, 'Moral Hazard and the Financial Crisis' (2009) 29 Cato Journal 142.
[107] Jón Daníelsson, *Global Financial Systems: Stability and Risk* (Pearson 2013).

depositors are protected in the event of default.[108] Further, moral hazard can creep in unnoticed by the clients. The advisor can have more information than the client and use it to act inappropriately.[109] Moreover, information imperfection can also have an impact on raising moral hazard.[110]

2.4.7 Consumer demand for regulation

Over time regulations have played a significant role in society. The consequences of the financial crises put considerable pressure on the government and regulators, which resulted in increased demand for better regulation, supervision, monitoring, and compensation mechanisms. Llewelyn offers a few reasons why consumers can be rational when demanding regulations. One of the most important factors is trust in the financial system due to the inadequate financial experiences provided by firms during the crisis. Regulations can improve customer protection and ensure that they are treated fairly. Another relates to lower transaction costs as regulations obviate the need to spend additional time and money on investigations and analyses of the financial market. Also, the regulations will protect against a firm's hazardous behaviour and offer redress or compensation if this occurs. Consumer protection should be the key focus of the changing financial environment.[111]

However, consumers cannot check or coordinate the work done by regulators. At this point many non-profit organisations ("NGOs") and independent bodies – eg, the National Consumer Federation, Which? or Citizen Advice – are investigating on behalf of consumers.[112] The best-known independent organisation that works closely with the FCA is the Financial Services Consumer Panel which was set up in 1998. The Financial Service and Markets Act 2000 requires the FCA to establish a panel to represent the interests of consumers.[113] This is an independent statutory body that represents the interests of consumers in the development of policies for the regulation of financial services. The panel challenges the FCA from the earlier stages of policy development and is keenly interested in broader consumer issues.[114] The panel comprises a diverse group of individuals with a wider range of expertise and backgrounds. They meet regularly with FCA officials to discuss different topics such as consumer protection, access to financial services, or financial inclusion. The principal roles and responsibilities of the FCA Consumer Panel include representing the views of consumers; conducting research and publishing reports on consumer issues; providing insight into FCA policy and feedback;

[108] Llewellyn (n 52) 28–30.
[109] Bengt Holmstrom, 'Moral Hazard and Observability' (1979) 10 The Bell Journal of Economics 74.
[110] Eric Zitzewitz, 'Retail Securites Regulation in the Aftermath of the Bubble' in Nancy L Rose, *Economic regulation and its reform: what have we learned?* (The University of Chicago 2014) 544–588.
[111] Llewellyn (n 52) 40–42.
[112] Citizens Advice, 'Citizens Advice - About' <https://www.citizensadvice.org.uk/about-us/information/what-we-do/> accessed 1 May 2023.
[113] Financial Services and Markets Act 2000 s.10.
[114] FCA, 'Financial Services Consumer Panel' <https://www.fca.org.uk/panels/consumer-panel> accessed 1 May 2023.

and engaging with consumer groups, industry stakeholders, and other organisations to promote consumer interests and fulfil their need regarding financial services in the UK.

At this point, it is also worth mentioning the UK Regulators' Network ("UKRN") which brings together regulators across different sectors to promote better outcomes for consumers and the economy. They work together to improve and foster competition, innovation, and standards by providers and maintain a healthy, transparent, and safe marketplace for consumers.[115]

2.5 Conclusion

Regulations are part of our system covering various sectors and activities within the country. Over time their shape has changed and adjusted to current times. The main aim of the regulations is to ensure safety, fairness, and accountability in the industry and to protect clients' interests. However, it all started with the objectives. These are set out in the FSMA 2000 and in research papers. Most notable in this regard is Llewelyn's paper (above) which highlights important aspects such as market confidence, public awareness, the protection of consumers, reduction of financial crime, and maintenance of financial stability. All these objectives create a basis for the rationale of the regulations and help create better regulations to maintain a transparent and safe financial market. At the same time there is a significant increase in innovation and digitalisation. Companies introduce new technology to improve customer experience and make work more efficient. One of the more prominent trends in the financial service industry is the robo-advice service which offers consumers financial advice or planning services through automated algorithms with no or limited human intervention. Like other forms of innovation, robo-advice may create challenges for regulators. The starting point is to look at regulatory objectives and how they are linked with innovations. For robo-advice the first objective that comes to mind is investor protection. As the advice takes place on an automated investment platform and uses only algorithms, investors need to feel protected as they cannot see or judge how the advice was created. Consequently, regulatory bodies focus on investor protection by setting standards for disclosure, transparency, and suitability of recommendations. The next objective relates to public awareness and financial inclusion. Currently, digitalisation is virtually universal – most notably in financial services. New forms of innovation like robo-advice provide everyone with open access to finance. Regulators require that the service provided be accessible, affordable, and compliant with protection regulations. In addition, all necessary information must be disclosed and no misleading context must be provided to the customer.

[115] The UK Regulator's Network, 'The UK Regulator's Network - About' <https://ukrn.org.uk/about/> accessed 1 May 2023.

Digital robo-advice services, like the traditional version of advice, need to create trust and confidence in the financial system. Investors need to feel protected and firms need to be transparent and open so Ras not to lose market confidence. As robo advisors are based on AI, the new technology system plays a crucial role in that it creates better protection against fraud and identity theft under standards set up by regulators. From the point above, it can be noted that current regulatory objectives can be linked to and used with different forms of innovation.

A question arising here is whether current regulations are adequate to cover current or upcoming innovations within the financial system, or whether creating a new 'specific' form of regulation is more appropriate.

Regulation and innovation create some form of relationship as both play an essential role in the financial system. It can be said that both regulation and deregulation can stimulate innovation, each in its own way. For example, regulation stimulates innovation by creating a need to find ways around existing regulations, whereas deregulation presents an opportunity to remove constraints and barriers. Regulations also face a challenge when responding to innovation. Public accountability, transparency, and certainty are only a few factors that regulation needs to take into consideration if it is to be legitimate. These factors make the process far slower than the private sector's ability to innovate. It is worth noting that despite the complexity, both regulation and innovation can influence each other. Moreover, the fundamental aspect of law and regulation is the possibility of accommodating changes in the regulatory infrastructure, if necessary.[116]

[116] Cristie Ford, *Innovation and the State: Finance, Regulation, and Justice* (1st edn, Cambridge University Press 2017) <https://www.cambridge.org/core/product/identifier/9781139583473/type/book> accessed 15 May 2023.

3 Chapter III: Innovation and Regulation Interface

3.1 Introduction

Technology and innovation have played a crucial role in the financial and regulatory environment during the past few decades. Financial development and associated changes followed by the process of financial innovation brought many benefits but also challenges to financial markets. The main focus appears in Financial Technology (FinTech), which is 'understood as finance enabled by or provided via new technologies'.[117] It is visible in almost all financial sectors: banking, insurance, pension, and investment advice. One of the most prominent innovations – and the subject of this research – is the form of automated financial advice where Artificial Intelligence (AI) is used to provide advisory services swiftly and efficiently to a mass of people. There are so-called Robo-Advisors. Apart from that, generic technologies like distributed ledger technology (DLT), payment systems, Big Data, and cloud computing, support and influence how innovation takes place. The digitalisation of existing services changes how the companies work and creates the possibility of offering more tailor-made services to those who were not able to use them before. Improvements are also visible on institutional and organisational levels in the financial system, reducing asymmetric information and transaction costs and increasing competition.

Innovation and technological businesses started to expand the markets, challenging traditional banks' dominance and, in some cases, partially their lending function. Applying new technology and low entry barriers allows tech companies to offer direct investment options and loans to consumers as alternatives to banks. By using disintermediation, they can provide a product at a lower cost and minimise waiting time for approval. This is achievable through the use of technology and innovative solutions which create a better customer experience. The application for a product takes less time and, in most cases, is fully automated making the service more efficient and effective.

Together with the increasing influence of innovation in the financial market, the regulatory aspect started to play a crucial part in creating a stable, efficient, and healthy financial environment for everyone. The application of new products within the system and society began to be included in the list of priorities for governments around the world. Regulations at this point, depending on the instrument, may either impede or facilitate adaptation within the current regulatory framework.

[117] European Parliament Committee on Economic and Monetary Affairs, 'Report on FinTech: The Influence of Technology on the Future of the Financial Sector' (2016/2243(INI)) A8-0176/2017 <https://www.europarl.europa.eu/doceo/document/A-8-2017-0176_EN.html?redirect> accessed 20 October 2017.

3.2 Understanding innovation

Innovation is associated with the creation and improvement of new products and processes. The history of technological changes and innovations has been visible for many decades and has currently acquired a central place in our society.[118] Firms have started to pay more attention to creating and introducing new innovative products. Innovation can bring many positive advantages for companies such as improving firms' performance, reducing costs, and increasing competition, which may lead to higher demand due to the differentiation of products and services. For many, innovations are recognised as a recent phenomenon; however, they have always existed.[119] Innovation can be understood in a broad context, such as innovation in science, art, or technology, but for this thesis innovation is approached from within a narrow context limited to the financial sphere.

A good example of financial innovation is the change seen in securities markets since 1970. The whole transformation of the market, including switching from physical to electronic, high-frequency systems, illustrates the power of innovation to change the world we live in.[120] Innovation can, therefore, be treated as a market experiment that can bring fundamental change in the restructuring of the financial markets.

It is necessary to clarify what financial innovation means. The term can be broadly defined as a 'natural outcome of a competitive economy'.[121] According to Lumpkin, innovation is 'neither inherently good nor inherently bad'.[122] It provides an efficient way to allocate resources and have a potential impact on social welfare and economic growth. There are several definitions of innovation which differ depending on their sub-elements. The term may be broadly defined as an invention or an idea taken to the market or diffused.[123] Per Scotchmer, 'an innovation requires both an idea and an investment in it'.[124] Govindarajan and Trimble created a four-step model for successful innovations made up of an idea, a leader, a team, and a plan.[125] A similar point is raised by Greenhalgh and Rogers,

[118] For a more general discussion of the impact of technology changes on society, see Emmanuel G Mesthene, *Technological Change: Its Impact on Man and Society* (Harvard University Press, 1970).
[119] Benoît Godin, 'Innovation: The History of a Category, Project on the Intellectual History of Innovation' (2008) 1 <https://www.csiic.ca/PDF/IntellectualNo1.pdf> accessed 2 November 2018.
[120] Douglas Arner and others, 'FinTech, RegTech and the Reconceptualization of Financial Regulation' [2016] Northwestern Journal of International Law & Business, Forthcoming University of Hong Kong Faculty of Law Research Paper <https://ssrn.com/abstract=2847806> accessed 2 November 2018.
[121] Stephen Lumpkin, 'Regulatory Issues Related to Financial Innovation' (2010) 2009 OECD Journal: Financial Market Trends 1.
[122] ibid 2.
[123] Anna Butenko and Pierre Larouche, 'Regulation for Innovativeness or Regulation of Innovation?' (2015) 7 Law, Innovation and Technology 52.
[124] Suzanne Scotchmer, *Innovation and Incentives* (MIT Press 2004); Christine Greenhalgh and Mark Rogers, *Innovation, Intellectual Property and Economic Growth* (Princeton University Press 2010).
[125] Vijay Govindarajan and Chris Trimble, *The Other Side of Innovation: Solving the Execution Challenge* (Harvard Business School Pub 2010).

who see innovation as 'the application of new ideas to the products, processes, or other aspects of the activities of a firm that lead to increased value'.[126] Much literature emphasises the importance of innovation and treats it as a priority[127] – the European Commission, for example, recognises it as 'a necessary condition for sustainable growth for Europe'.[128]

It is worth pointing out that innovation can occur not only within a marketplace but also outside the market. If the firm makes an internal change, it will impact on both productivity and products. Joseph Schumpeter, who is recognised as the leading influencer of innovation theory, pointed out that development is driven by innovation where a dynamic process emerges in which new technologies replace old ones. He terms this process "creative destruction".[129] Additionally, he proposes a list of various types of innovation. These include innovation related to new products, market structures, new methods of production, opening new markets, and developing new resources.[130] One of the examples of the most innovative and recognised product is PayPal which provides online payment systems that support the transfer of money without revealing financial details. The online platform offers a variety of access points for its consumers to use at any time in virtual shops. This includes traditional online access and mobile applications available for many devices. PayPal offers a variety of funding instruments by which customers can fund their accounts using a debit card, credit card, electronic funds transfer, or PayPal balance.[131] Electronic payment services are essential for the entire economy and key to the public interest.

Attention to emerging innovations has also started to emerge in many parts of the world, including the US, China, and Australia.[132] Moreover, many innovations have been positively received in the financial sector. However, there are also examples of innovations with adverse effects. For instance, some new innovative products are inadequate for end-users and may lead to credit or market risks that impact on and have an adverse effect throughout the financial system, especially if they are not

[126] Greenhalgh and Rogers (n 124).
[127] European Commission, 'Communication from the European Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Europe 2020 Flagship Initiative, Innovation Union, COM (2010) 546 Final' <http://aei.pitt.edu/46014/1/COM_(2010)_546.pdf> accessed 2 November 2017.
[128] European Commission, 'Better Regulations for Innovation-Driven Investment at EU Level: Commission Staff Working Document.' (Directorate General for Research and Innovation 2016) <https://data.europa.eu/doi/10.2777/987880> accessed 19 October 2017.
[129] Joseph A Schumpeter, *The Theory of Economic Development: An Inquiry into Profits, Capita I, Credit, Interest, and the Business Cycle* (1st edn, Routledge 2017) <https://www.taylorfrancis.com/books/9781351472210> accessed 10 January 2023.
[130] ibid.
[131] Lawrence J Trautman, 'E-Commerce and Electronic Payment System Risks: Lessons from Paypal' [2016] 16 UC Davis Business Law Journal 261 274.
[132] Dieter Reichwein and Simonetta Rosati, 'Nonbanks in the Payments System': (2007) Working Paper 07-01 <https://www.kansascityfed.org/Research%20Working%20Papers/documents/5154/rwp-nonbanksrwp07-01.pdf> accessed 2 January 2018.

adequately tested or supervised. To minimise this effect, the authorities should be able to incorporate infrastructure to support innovative activities rather than imposing controls on new products.[133]

Emerging innovations are also associated with increased risk. The most common issues in the financial market are cyber risk, privacy, and big data as they collect and agglomerate all existing consumer data. In terms of the IOSCO report, cyber risk 'refers to the potential negative outcomes associated with cyber-attacks'.[134] In this vein, cyber-crimes are described as an attack on the confidentiality, integrity, and accessibility of the system data.[135] This is a highly complex area as, on the one hand, firms work to upgrade their defence system, while on the other, hackers develop a new way to breach the rule. There is considerable evidence showing the increase in cyber-attacks in recent years.[136] The data breach is costly for organisations and impacts negatively on society as it affects private customer data. Firms need to introduce robust security and risk-management systems to minimise their exposure to cyber risk. It is worth noting that the financial sector ranks in the top three most affected industries.[137] Security is a high priority for industry and requires proper regulation. However, multiple regulatory structures could result in duplication and additional costs. In the case of insurance, there is concern overriding how to measure the cybersecurity risk in consumer data breaches.[138] Governments and regulators worldwide are taking steps to mitigate and stop any possible effects of cyber-attacks. However, the approaches adopted can vary from country to country as they depend on the nature of the financial market and existing regulations. Moreover, there is no "one size fits all" approach that market participants can adopt.

From the regulation perspective, New York's Department of Financial Services was the first to introduce the cybersecurity regulation which requires applying a cybersecurity program to protect the integrity and confidentiality of all data.[139] In the UK, the government issued a cybersecurity regulation

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[133] Lumpkin (n 121) 3.
[134] IOSCO, 'Cyber Security in Securities Markets – An International Perspective. Report on IOSCO's Cyber Risk Coordination Efforts' (2016) FR02/2016 <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD528.pdf> accessed 2 January 2018.
[135] IOSCO, 'Cyber-Crime, Securities Markets and Systemic Risk. Joint Staff Working Paper of the IOSCO Research Department and World Federation of Exchanges' (2013) SWP2/2013 <https://www.iosco.org/research/pdf/swp/Cyber-Crime-Securities-Markets-and-Systemic-Risk.pdf> accessed 2 January 2018.
[136] For example, in 2016 two raids on the Bangladesh Central Bank were conducted, which were detected by SWIFT. Another example of a data breach came from Yahoo, where around 3 billion accounts were affected in a hack attack.
[137] Verizon Data Breach Investigations Report, '2017 Data Breach Investigations Report' (2017) <https://www.knowbe4.com/hubfs/rp_DBIR_2017_Report_execsummary_en_xg.pdf> accessed 1 January 2018.
[138] Deloitte, 'Navigating the Year Ahead Financial Services Regulatory Outlooks 2017' (2016) <https://www2.deloitte.com/gr/en/pages/financial-services/articles/navigating-year-ahead-financial-services-regulatory-outlooks-2017.html> accessed 23 October 2017.
[139] New York State Department of Financial Services, 'Cybersecurity Requirements for Financial Services Companies 23 NYCRR 500' <https://www.dfs.ny.gov/system/files/documents/2023/03/23NYCRR500_0.pdf> accessed 23 October 2017.

and incentive review.[140] The cybersecurity regime is currently applied in the UK under the Data Protection Act 1998 ("DPA") and the EU General Data Protection Regulation ("GDPR") which was implemented in the UK pre-Brexit.[141] Additionally, the European Union Network Information Security ("NIS") Directive is currently under consideration for implementation in the UK.[142]

Firms looking to expand their innovation products need to focus on cybersecurity from both a regulatory and a reputational perspective. From a regulatory view, firms need to ensure they are well-prepared in three areas of risk. These include risk management and identification – the firm should be able to demonstrate that all procedures are in place in case of cyber or IT risks at all levels of the organisation; risk governance which relates to internal rules, processes, and mechanisms which will be used to cope with the complexity of cyber risk; and risk resilience – a strong need to prove that it has a robust plan and the ability to act swiftly in response to cyber breaches to minimise the negative effect on the customer.[143] Cyber-attacks can also impact on trust in financial institutions. For these reasons, all market participants and policymakers must work together to improve cybersecurity within the marketplace.

3.3 Regulation views

The industry is constantly changing due to the transformation of both existing businesses and new players entering the market. The evolution of technological developments and financial innovations brings the possibility of improving financial services offered to consumers; however, it also brings regulatory uncertainty as current regulations might not be adequate for businesses due to the fast-changing financial environment. Hence, regulation plays a crucial role within the financial environment while at the same time integrating people and businesses. Certain scholars are opposed to specific regulation for innovation. For example, Wood argues that 'regulation acts as a barrier to innovation and to new entry'.[144] Given this, it is appropriate to consider the rationale for regulation to judge the purpose of regulations and if they are needed. Various authors have highlighted and provided their own points regarding the rationale for regulations. As an example, Kay holds the view

[140] HM Government, 'Cyber Security Regulation and Incentives Review' (2016) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/579442/Cyber_Security_Regulation_and_Incentives_Review.pdf> accessed 23 October 2017.
[141] Footnote on Brexit referencing the legislation 'on-shoring' EU regulation after Brexit.
[142] The NIS directive was enacted by the European Parliament in 2016 and per the EU legislation, all Member States are obliged to incorporate it in domestic legislation before 9 May 2108. The main aim of legislation is to promote the security of network and information systems.
[143] Deloitte, 'The next Frontier - The Future of Automated Financial Advice in the UK' (2017) <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/financial-services/deloitte-uk-updated-robo-advice-new-horizons-layout-mww8.pdf> accessed 2 January 2018.
[144] Wood (n 6) 351.

that the primary rationale for regulations is 'to remedy various kinds of market failure'[145], while Bator sees it as 'the failure of a more or less idealised system of price-market institutions to sustain "desirable" activities or to stop "undesirable" activities'.[146] There are three different sources of market failure: externalities, market power, and information asymmetry. Starting with the first source, externalities arise when a firm's consumer is directly affected by the economic activities of another market participant. They can also be described as a divergence occurring between a private and a social benefit.[147] Market power will be linked to monopoly and competition within the market. Competition includes information asymmetry problems and relates to imperfect information on the price and quality of the products on offer. Alba expresses a similar view of the rationale for regulations. He points out that 'the object of regulations in the financial services industry is to contain systemic instability and protect the consumers'.[148] Likewise, Llewellyn identifies the ultimate rationale for regulations and focuses primarily on consumer protection. The main aim is to increase the efficiency of market procedures. It should be possible to correct imperfections and failures occurring in the financial market and introduce minimum quality standards that will help enhance confidence in the market.

Changes in the business sphere are inevitable and regulation is required to deal with change and build a regulatory infrastructure tied to the fast-changing financial environment. The aim of regulation in an innovative context is to maximise the benefit from innovations and minimise their adverse effects.[149] Currently, there is no clear answer on how regulations relating to innovation impact the nature of the issue and the area in which it occurs. To determine the impact, it is necessary to understand the broader context of regulations and their beneficiaries. As a first step it is worth considering the economic and social preferences that may be relevant. Firstly, economic regulation aims to promote effective competition and establish market conditions such as price controls, market entry conditions, and contract terms.[150] Changes in the economic area may affect the efficiency and fairness of the market.[151] This is then linked to market innovation which 'create[s] benefits that firms can capture through the sale of goods and services in the market.'[152] Secondly, there is a social

[145] Kay and others (n 88) 301.
[146] Francis M Bator, 'The Anatomy of Market Failure' (1958) 72 The Quarterly Journal of Economics 351.
[147] Kay and others (n 88) 301.
[148] European Commission and World Bank (eds), *Opportunities and Risks in Central European Finances* (World Bank 2000).
[149] Butenko and Larouche (n 123) 64–65.
[150] BIS Department for Business Innovations and Skills, 'Principles for Economic Regulation' <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/31623/11-795-principles-for-economic-regulation.pdf> accessed 15 November 2017.
[151] For example, in the UK the body responsible for regulating the securities market is the Financial Conduct Authority (FCA), in the EU - European Securities Market Authority (ESMA) and in the US - the Securities and Exchange Commission (SEC).
[152] Richard B Stewart, 'Regulation, Innovation, and Administrative Law: A Conceptual Framework' (1981) 69 California Law Review 1256.

regulation that protects the welfare of society by introducing additional requirements for firms. It focuses on environmental controls and health and safety aspects.

A further classification is social innovation which refers to 'product and process innovations that create social benefits, such as cleaner air, that firms cannot directly capture through market sales'.[153] The differences between social and market innovation are significant, as regulations can have the opposite effect on them. For example, under environmental regulation firms may be obliged to develop and introduce new, clearer technology. In this case, it will be beneficial from society's point of view and have a positive impact on social innovation. However, it may have a negative impact on market innovation as it may exceed the private benefits for firms. In the same vein, a company may incorporate delays to its innovations if rigorous regulations are adopted. In this situation, the company may try to escape the regulatory requirements as new and onerous rules may result in additional costs for firms.[154]

It is also possible to distinguish two additional situations associated with innovation. First, is "circumventive innovation" which occurs in a narrow regulatory regime. Here, the company may start to invest in more advanced technology-specific products and services and consider the opportunity to apply regulatory arbitrage. Second, is "compliance innovation" where new innovative products and services may fall within the scope of the regulation, resulting in further costs for the company.[155]

In light of the above, there is some debate around the "Porter hypothesis" as to whether social regulations stimulate market innovation. Michael Porter stated that social regulation with a focus on environmental regulation might have a positive impact and encourage innovations while also having an effect on competitiveness. For example, the innovation effect can be seen in the inducement of the production of high-quality products and an increase in a firm's private benefits.[156] In summary: environmental regulations bring benefits not only to society but also to firms. However, despite positive reactions from policy makers, economists criticised Porter's hypothesis which they saw as

[153] ibid 1256.
[154] Michael E Porter, 'The Competitive Advantage of Nations' (1990) 74 Harvard Business Law Review <https://economie.ens.psl.eu/IMG/pdf/porter_1990_-_the_competitive_advantage_of_nations.pdf> accessed 15 November 2017.
[155] Luke A Stewart, 'The Impact of Regulation on Innovation in the United States: A Cross-Industry Literature Review' [2010] Information Technology & Innovation Foundation <https://d1bcsfjk95uj19.cloudfront.net/files/2011-impact-regulation-innovation.pdf> accessed 15 November 2017.
[156] Michael E Porter, 'Essay (America's Green Strategy)' (1991) 264 Scientific American <https://www.scientificamerican.com/article/essay-1991-04> accessed 14 April 2024; Michael E Porter and Claas van der Linde, 'Green and Competitive: Ending the Stalemate' [1995] Harvard Business Review <https://hbr.org/1995/09/green-and-competitive-ending-the-stalemate> accessed 15 November 2017.

lacking a precise foundation.[157] Porter's analysis shows that various regulations (in this example, environmental regulation) can have an impact on innovation; however, their effect must be carefully identified and have regard to a broad spectrum of regulations. In this context, regulations work as a form of defence against the negative effects of innovation which can be unpredictable.

3.3.1 Regulatory dialectic

The regulatory environment plays an integral part in firms' business models; however, in principle, the regulation does not directly control it but may start to have the effect as it becomes more granular. It can be seen in new regulations or by imposing regulatory restrictions on firms, as was done after the 2007/2008 financial crisis. This was mainly reflected in capital requirements. Several new regulatory mandates were introduced to improve transparency and reduce overall market risk.[158] However, this is linked to an increase in the firm's compliance costs. In this case, firms may need changes to their reporting systems or organisational structures. Depending on the type of regulation, it may limit revenue and profitability or restrict some form of products or activities. The complexity of the law may also have implications for competitive strategies. The above perspective shows that regulations can either help or harm firms. The inevitable point worth mentioning is regulatory arbitrage, which creates an advantage for firms' financial institutions and has driven innovation. In the literature the term tends to refer to a situation where banks design their activities in a way that will reduce the regulations imposed on them. Nouy points out that regulatory arbitrage moves into a situation when 'the risk becomes insufficiently regulated'.[159] Girasa defined it as 'restructuring of financial activity aimed at avoiding taxes, disclosure, capital requirement, which on another side increases cash flows to the sponsors by lessening the costs of regulation'.[160] Additionally, Miller recognised that innovation was driven by regulatory arbitrage, which can be done without breaking the law. The main aspects impacting financial advantages are regulations and taxation which give rise

[157] Stefan Ambec and Philippe Barla, 'A Theoretical Foundation of the Porter Hypothesis' (2002) 75 Economics Letters 355; Karen Palmer, Wallace E Oates and Paul R Portney, 'Tightening Environmental Standards: The Benefit-Cost or the No-Cost Paradigm?' (1995) 9 The Journal of Economic Perspectives.

[158] After the crisis - The Basel Committee on Banking Supervision presented the Basel III package. It contained the minimum requirements for internationally active banks. The main aim was to strengthen the regulation, supervision, and risk management of the banking sector. It also focused on how to improve the ability of banks to absorb shocks arising from financial and economic stress, whatever the source, improve risk management and governance, and strengthen banks' transparency and disclosures. BIS, 'Basel III: International Regulatory Framework for Banks. Finalisation of the Basel III Post-Crisis Regulatory Reforms' <https://www.bis.org/bcbs/basel3.htm?m=3%25257C14%25257C572> accessed 10 October 2018.

[159] Danièle Nouy, 'Gaming the Rules or Ruling the Game? – How to Deal with Regulatory Arbitrage. Speech at the 33rd SUERF Colloquium, Helsinki, 15 September 2017' (2017) <https://www.bankingsupervision.europa.eu/press/speeches/date/2017/html/ssm.sp170915.en.html,> accessed 18 October 2018.

[160] Rosario J Girasa, *Shadow Banking: The Rise, Risks, and Rewards of Non-Bank Financial Services* (Palgrave Macmillan 2016) 50.

to the changes.[161] As Riles points out, arbitrage is recognised as 'one of the great singular achievements of economic thought'.[162]

Financial institutions generally incline to allot greater financial resources to find better solutions to limit the regulatory burden and cut extensive regulatory costs. In fact, firms try to exploit loopholes at every step as regulations differ between sectors and countries.[163]

It is worth mentioning that regulations are already complex, and applying regulatory arbitrage exacerbates the complexity. It can be said that regulators or policymakers are playing a game with banks called "regulatory dialectic". It starts with regulators who assign new rules to improve stability and make the financial market more stable and sounder. Then, banks try to find a way around the rules to reduce the regulatory burden. As a result, the regulators are trying to close the loopholes by adjusting the current rules. This, however, does not stop banks from finding some other way to increase their profitability and efficiency. The game appears endless until a new solution is applied.[164]

The three forms of regulatory arbitrage need closer consideration. The best-known is "cross-jurisdiction arbitrage". It represents the situation where rules are applied differently in the two countries. A classic example is when regulation is less strict in country A than in country B. This will lead to financial institutions constantly moving their activities depending on regulatory benefits.

The second form is "cross-framework arbitrage". This occurs when, rather than looking for loopholes, financial institutions jump between sectors to minimise the effect of the applicable rules. An example is the shadow banking sector which was one of the issues during the 2007-2010 financial crises. The institutions may move their exposure to a new entity, the Special Purpose Vehicles ("SPV"), which does not fall under prudential regulations. However, there is another way to duck the regulatory radar by changing the legal structure to joint ventures that can be partially consolidated from the legal perspective. This notwithstanding, it is linked to the extensive risk that the financial institution takes by moving its exposure. They are taking a "step in risk" which is generally hidden and difficult to identify.

[161] Merton H Miller, 'Financial Innovation: The Last Twenty Years and the Next' (1986) 21 The Journal of Financial and Quantitative Analysis 459; Atul K Shah, 'Regulatory Arbitrage through Financial Innovation' (1997) 10 Accounting, Auditing & Accountability Journal 85.
[162] Annelise Riles, 'Managing Regulatory Arbitrage: A Conflict of Laws Approach' (2013) 47 Cornell International Law Journal <http://www.ssrn.com/abstract=2335338> accessed 18 October 2018.
[163] Nouy (n 159) 2.
[164] ibid 3.

Finally, the third form refers to "intra-framework arbitrage" where banks try to optimise current rules within the market. The main point is to minimise the capital and liquidity ratio to limit the low level of risks.[165]

Moreover, regulatory arbitrage has started to play a role in driving innovation. It emerged as a class of shadow banks in the financial market responding to the higher capital requirements, more significant capital constraints, and higher costs introduced by regulators.[166]

However, there are many alternative definitions of shadow banking. In broad terms, shadow banks can 'refer to non-bank financial intermediaries that engage in activities which have traditionally been the business of banks'.[167] Others are recognised as 'the network of financial intermediaries that conduct maturity, credit, and liquidity transformation without being subject to banking regulation and without formal access to central bank liquidity or public sector credit guarantees'.[168] It is recognised that shadow banking tends to be less regulated than traditional financial institutions. The key difference is a deposit which shadow banks do not retain. Consequently, they do not fall under the regulatory umbrella which gives them an advantage over traditional banks. Slowly but effectively, this has led to the shifting of financial activities from banks to non-banks. "Non-banks" can be understood here as new technological entrants who disrupt the banking sector by using the analysis of big data, AI, and the new form of distribution channels. The emerging players can offer a new way of re-pricing a loan on the basis of better terms, efficient service and, what is most important, a lower interest rate.[169] It is worth noting that regulators treat fin-tech banking start-ups as a new form of shadow banking. The difference lies in how the business is conducted. In the fin-tech sector all processes are provided on an online platform by using financial technology. This leads to regulatory arbitrage increasing the demand for shadow banking and to drive innovation.[170]

An example of regulatory arbitrage-driven innovation is the creation of an online platform called P2P "peer to peer" lending. It arrived in the financial markets in the wake of the financial crisis when the

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[165] ibid 3–5.
[166] Greg Buchak and others, 'Fintech, Regulatory Arbitrage, and the Rise of Shadow Banks' (National Bureau of Economic Research 2017) w23288 <http://www.nber.org/papers/w23288.pdf> accessed 10 October 2018.
[167] ibid 11.
[168] The CNMV's Advisory Committee, 'CNMV's Advisory Committee Response to the FSB Consultative Documents: A Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities and a Policy Framework for Addressing Shadow Banking Risks in the Securities Lending and Repos' <https://www.fsb.org/wp-content/uploads/c_130129y.pdf> accessed 10 October 2018.
[169] Ryan M Nash and Eric Beardsley, 'The Future of Finance. The Rise of the New Shadow Bank' (2015) <https://www.betandbetter.com/photos_forum/1425585417.pdf> accessed 10 October 2018.
[170] Steven L Schwarcz, 'Regulating Shadow Banking' (2012) 31 Review of Banking and Financial Law <http://www.ssrn.com/abstract=1993185> accessed 10 October 2018; Guillaume Plantin, 'Shadow Banking and Bank Capital Regulation. Hong Kong Institute for Monetary and Financial Research (HKIMR)' (2014) 28 The Review of Financial Studies <http://www.ssrn.com/abstract=2544273> accessed 10 October 2018.

banks cut their lending portfolios.[171] This is a non-banking platform that helps borrowers to access money more quickly and at a lower cost. It creates a new financial market experience and allows individuals to lend money to other people or small businesses by using a specially created website. P2P lending started in the USA but soon spread across Europe, focusing mostly on Germany and the UK. The main companies in the UK are Funding Circle, Zopa, and Market Invoice; in the USA one of the biggest is Lending Club. The E-platform brings advantages for lenders as they can lend money at lower interest and offer higher returns to investors who hold the sold loans.[172] Moreover, the risk is mitigated as investor money is spread across multiple borrowers instead of one, which creates the so-called "portfolio effect'.[173] and makes P2P lending more attractive to new investors and high-net-worth individuals ("HNWIs").

From the regulatory perspective, capital arbitrage is applied. Third-party investors provide the capital; hence, the lending company (which is more of an intermediary as the loans are P2P) does not bear the credit risk and is not required to apply the regulatory rules.[174] Additionally, as all activities take place online, it helps to cut the cost associated with labour and save much of the customer's time. However, the borrowers also need to be aware that they are not legally protected as regards issues related to anti-money laundering or fraud.[175]

3.3.2 Regulatory aspect

As new innovations have emerged in the financial market, the regulatory environment has been challenged. The development of new technology changes how services are provided and how the law applies. It is becoming common to suggest that technology can be used as a "kind of law" that helps regulate the behaviour of its users.[176] The new forms of innovation may disrupt the market and interact differently with private law. An example is a smart contract where the law combines elements of property and obligation – property rights are transferred and obligations are performed based on

[171] Robert Guttmann, *Finance-Led Capitalism: Shadow Banking, Re-Regulation, and the Future of Global Markets* (Palgrave Macmillan 2016).
[172] Gianluca Oricchio and others, *SME Funding: The Role of Shadow Banking and Alternative Funding Options* (Palgrave Macmillan 2017).
[173] ibid 213.
[174] Nash and Beardsley (n 169) 17.
[175] Oricchio and others (n 172) 209.
[176] For a general view, refer to Lawrence Lessing, who argues that 'code is law' – Lawrence Lessig, *Code: And Other Laws of Cyberspace* (The Perseus Books Group 2000).

contractual terms included in the contract. Another is Blockchain which already applies within financial services. To date, however, it is not regulated in the UK.[177]

A notable example in this context is AI which is currently widely used in many innovative products – for example, robo-advisors. AI is defined as 'a system's ability to correctly interpret external data, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation'.[178] It is characterised as a set of instructions or codes that are checked and executed once AI has been triggered. AI brings a new opportunity for firms and customers, simplifying routine tasks and streamlining business processes. It creates a high level of accuracy and precision by collecting and analysing a significant amount of data. It opens a door for further developments and new capabilities. In the area of digital advice, it offers a wide range of opportunities, starting from an online advisor or hybrid advisor to rebalancing the portfolio created in the process. Robo-advisors using AI offer many benefits for customers and providers, but new challenges arise for both. Customers receive more affordable advisory services when compared to those of traditional advisors. Apart from this, investment access is far simpler and more convenient to use than previously. On the other hand, contact with the advisor is limited as all transactions are performed behind the scenes by the AI engine. Additionally, digital advice may also have a limitation in assessing the proper risk tolerance as the calculation is based on pre-determined questionnaires. From the provider's perspective, competition is increasing in the market and is accompanied by a rise in marketing spending and uncertainty as to future acceptance by customers.

As regards the regulatory aspect, it is worth noting that a financial intermediary manages the robo-advisor which means that it falls under the Markets in Financial Instruments Directive (MiFID 2) and the FSMA 2000 regime in the UK. The directive expresses the idea of technology-neutral regulation, hence apart from covering the traditional financial intermediary, it also covers digital advisors (robo-advice). Technology-neutral elements began to be widely recognised in the market following the increasing role of innovation. They offer considerable flexibility and time for policy makers to understand the innovation better before further regulation is introduced. Nonetheless, they also bring limitations in that general views and practices do not always fit into a fast-changing environment.

[177] As of 23 April 2023, cryptoassets are not themselves regulated in the UK. The FCA only has the power to oversee the firms as regards the anti-money laundering (AML) and terrorist financing procedures – HM Government, 'Policy Paper Factsheet: Cryptoassets Technical' <https://www.gov.uk/government/publications/economic-crime-and-corporate-transparency-bill-2022-factsheets/fact-sheet-cryptoassets-technical> accessed 23 April 2023.
[178] Andreas Kaplan and Michael Haenlein, 'Siri, Siri, in My Hand: Who's the Fairest in the Land? On the Interpretations, Illustrations, and Implications of Artificial Intelligence' (2019) 62 Business Horizons 15.

Currently, there is no specific regulation applicable to AI in the UK. In July 2022 the UK Government published the AI Regulation Policy Paper, which presents its vision for an AI regulatory regime. The government also confirmed that new legislation, together with a new regulator, would not be considered specifically for AI. Instead, a more decentralised approach was proposed with six principles that could apply across sectors. The first relates to using AI safely across sectors with a focus on a context-based approach and managing the risk. Second, the AI system needs to be tested for its technical and functioning as designed. Third, applies to the transparency and that the AI system must be readily explainable. The fourth requires the inclusion of fairness in an AI system, and the fifth requires a definition of legal persons' responsibility for AI governance. The latter is particularly important as it will give individuals or groups the opportunity to contest the outcomes of AI systems in the relevant regulated situation.[179] The proposed principles have been built based on the OECD's AI Principles[180], and the proposed UK policy focuses on lighter-touch options for regulation and high-risk concerns. This is a slightly different approach from that proposed by the European Commission[181] and the first major divergences in the regulatory approach in the post-Brexit world. In the proposal submitted by the EC, the idea is to create a new regulation that will specifically apply to AI across all member states. Apart from that, it also contains a list of prohibited AI practices and focuses on high-risk AI concepts that require further regulatory scrutiny. The first draft of the AI regulation reached a political agreement in the Council in December 2023. The aim of the AI regulation is 'to ensure that fundamental rights, democracy, the rule of law and environmental sustainability are protected from high-risk AI, while boosting innovation and making Europe a leader in the field' [182]. Soon after, in March 2024, the Parliament approved the AI Act[183] and in May 2024 the Council gave the green light for the first worldwide rules on AI.[184]

[179] HM Government, Department or Digital, Culture, Media and Sport, 'Establishing a Pro-Innovation Approach to Regulating AI An Overview of the UK's Emerging Approach. CP 728' <https://assets.publishing.service.gov.uk/media/62d7feaae90e071e772445cd/_CP_728__-_Establishing_a_pro-innovation_approach_to_regulating_AI.pdf> accessed 4 January 2023.
[180] OECD, 'Recommendation of the Council on Artificial Intelligence' (2019) OECD/LEGAL/0449 <https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449> accessed 4 January 2023.
[181] European Commission, 'Proposal for a Regulation Laying down Harmonised Rules on Artificial Intelligence - Document 52021PC0206' <https://eur-lex.europa.eu/resource.html?uri=cellar:e0649735-a372-11eb-9585-01aa75ed71a1.0001.02/DOC_1&format=PDF> accessed 3 January 2023.
[182] European Commission, 'Artificial Intelligence Act: Deal on Comprehensive Rules for Trustworthy AI' (December 2023) <https://www.europarl.europa.eu/news/en/press-room/20231206IPR15699/artificial-intelligence-act-deal-on-comprehensive-rules-for-trustworthy-ai> accessed 30 June 2024.
[183] European Commission, 'Artificial Intelligence Act: MEPs Adopt Landmark Law' (March 2024) <https://www.europarl.europa.eu/news/en/press-room/20240308IPR19015/artificial-intelligence-act-meps-adopt-landmark-law> accessed 10 June 2024.
[184] European Council, 'Artificial Intelligence (AI) Act: Council Gives Final Green Light to the First Worldwide Rules on AI' (May 2024) <https://www.consilium.europa.eu/en/press/press-releases/2024/05/21/artificial-intelligence-ai-act-council-gives-final-green-light-to-the-first-worldwide-rules-on-ai/> accessed 25 May 2024.

3.3.3 Principle of technological neutrality

3.3.3.1 Meaning of principles

In the digital world, the principle of technological neutrality is clearly evident. The cornerstone of technological neutrality is the dichotomy between regulating performance and design. As Greenberg states: 'Technology neutrality's lodestar is intent to regulate behaviour, not technology; to worry about what occurs, not how it occurs'.[185] This means that the terms are general and vague and contain a general description of purpose. In the common view, the principle of technological neutrality seeks to ensure that the same approach is used across different technologies. This approach allows the market to decide which technology suits it best and promotes competition and the development of new technology. To establish if a rule is technologically neutral, the interpretation of the legal text can be used.

The principle states that the rules governing offline activities should apply in the same form as those governing online activities. This will prevent favouring and discriminating against technologies with identical effects. Additionally, the principle could be supplemented by additional rules related to the use of technology rather than of technology itself.

The first sign of an attempt to incorporate a technology-neutral rule in the international trading (e-commerce) system was in the 1980s and1990s. In 1985 the United Nations Commission on International Trade Law recommended that governments should review and simplify their rules.[186] Then, in 1997, both in the USA and in Europe, the guide to set up the principles for international e-commerce was issued, stressing that rules should be technology-neutral and governments should 'frame regulations which are technology-neutral, whilst bearing in mind the need to avoid unnecessary regulation'.[187] Soon after, a similar approach was introduced in Asia.[188] Another example of the introduction of the principle of technology neutrality is the European Union. This principle was introduced in many legal texts. An example is the E-Money Directive, where Recital 7 provides:

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[185] Brad A Greenberg, 'Rethinking Technology Neutrality' (2016) 100 Minnesota Law Review 1512.
[186] United Nations Commission on International Trade Law (UNCITRAL), 'Recommendation on the Legal Value of Computer Records' <https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/computerrecords-e.pdf> accessed 22 December 2022.
[187] For the USA, look at US White House, 'The Framework for Global Electronic Commerce' <https://clintonwhitehouse4.archives.gov/WH/New/Commerce/read.html> accessed 22 December 2022; European Ministerial Conference, 'Global Information Networks : Realising the Potential' (Publications Office 1997) <https://op.europa.eu/en/publication-detail/-/publication/0d76a85c-e66a-41af-91c2-28cd29a85094> accessed 22 December 2022.
[188] Asia-Pacific Economic Cooperation (APEC), 'APEC Blueprint for Action on Electronic Commerce' <https://www.apec.org/meeting-papers/leaders-declarations/1998/1998_aelm/apec_blueprint_for> accessed 22 December 2022.

> ‘It is appropriate to introduce a clear definition of electronic money in order to make it technically neutral. That definition should cover all situations where the payment service provider issues a pre-paid stored value in exchange for funds, which can be used for payment purposes because it is accepted by third persons as a payment.’[189]

Apart from that, the principle of technology neutrality can be seen in the General Data Protection Regulation and EU Regulation on Electronic Identification, Authentication and Trust Services.[190]

3.3.3.2 Rationale and challenges

With the increasing role of technology, the principle of technology neutrality started to be an agenda item when creating new regulations for emerging technologies. This development necessitates a consideration of the benefits and challenges it holds if the concept is to be fully understood.

To begin with, Van der Haar presented four rationales for the technology-neutral principle. He divided them into non-discrimination, sustainability, efficiency, and consumer certainty. First is the non-discrimination rationale which requires that regulation will not favour one over the other and will maintain an acceptable level of competition in the market. Further, preserving this rule does not require regulatory changes. The second rationale links with the sustainability approach by requiring the regulation to be adjustable and open to technological developments and changes. This means that the law should not be based on technology; hence, new innovations will be covered by the existing regulations. This will have a positive impact not only on market participants but also on policymakers, as regulations will not need to be revised as often. The third rationale responds to the efficiency of created rules. Regulations need to be developed in an efficient way so they can evolve alongside technology development – ie, they need to be more dynamic and functional as opposed to static and rigid. This links with the consumer certainty rationale. If the service offered is treated as interchangeable, then the consumer’s expectation is that the service is regulated in the same way based on the technology-neutral approach.[191] The explanation above shows the complexity of the

[189] Directive 2009/110/EC of the European Parliament and of the Council of 16 September 2009 on the taking up, pursuit and prudential supervision of the business of electronic money institutions amending Directives 2005/60/EC and 2006/48/EC and repealing Directive 2000/46/EC (OJ L 267/7).

[190] General Data Protection Regulation – Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC 2016 (OJ L 119). (Recital 15 states: ‘the protection of natural persons should be technologically neutral and should not depend on the techniques used’); Regulation (EU) 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC 2014 (OJ L257).(Recital 16 states: ‘It should be possible to achieve the necessary security requirements through different technologies’).

[191] IM van der Haar, ‘The Principle of Technological Neutrality: Connecting EC Network Ad Content Regulation’ (Tilburg University 2008) <https://pure.uvt.nl/ws/portalfiles/portal/1063437/3240352.pdf> accessed 22 December 2022.

technology-neutral principle and its variable application. At this stage, it is also worth noting Reed's interpretation of the technology-neutral principle. He explains it on the basis of the different meanings of the principle. Reed agrees that the same fundamental rules should be applied to the online and offline nature of regulated objects. He also notes that the same technology-neutral rules might differ in wording to achieve the same effects when applied to different technologies. He also confirms that rules should not discriminate against a particular technology and offers categories of technology-neutral regulation. These he classifies as technology-indifferent regulation, implementation-neutral regulation, and potential neutral regulation. The first applies in situations where regulation is indifferent to what technology is used and, based on the general rule mentioned earlier, rules apply equally in both online and offline contexts. The implementation of neutral regulation means that when a specific regulation is introduced, it does not favours one over another technology. The final category relates to potential neutral regulation which arises when a legal result is expected to be achieved by the application of a specific regulation.[192]

In summary: the main benefits flowing from the application of a technology-neutral policy are as presented. First is the limitation and ease in revising regulations. Due to the time-consuming and lengthy process, it will save a lot of time and compliance for both firms and regulators. This adaptability will make it easier to adjust to a fast-changing environment. Second is healthy competition and non-discrimination. Neutrality will guarantee equal treatment of the same service, even if there is a different way of delivering it. The third benefit relates to a broad spectrum of technology-neutral approaches. Creating a narrow policy will limit competition and withhold the development of innovation. The last one relates to flexibility and freedom of choice. Technology, in this sense, may evolve together with society by adjusting to its needs. Due to the flexibility and freedom offered by policymakers, the adoption of innovation services can happen more quickly.[193]
Apart from the many benefits flowing from a technology-neutral approach, there are a few challenges that need to be highlighted. The first relates to the language used to describe the technology-neutral rule. It appears to be too vague and ambiguous, creating challenges not only for regulators but also for everyone using the rules. If the interpretation is too broad, difficulties arise in classifying technology under the correct regulation, leaving the meaning unclear and opaque. The second challenge is that the principle is under-theorised. This means that scholars and researchers are not aware of all aspects, including restrictions and the potential of the rule. Mangano argues that 'technology neutrality is really a principle of law rather than a rule of thumb'.[194] Further, Ohm, sees

[192] Chris Reed, 'Taking Sides on Technology Neutrality' (2007) 4 SCRIPT-ed 263.
[193] Essi Puhakainen and Elisabeth Vayrynen, 'The Benefits and Challenges of Technology Neutral Regulation – A Scoping Review', *PACIS 2021 Proceedings. 48* (2021).
[194] Renato Mangano, 'Blockchain Securities, Insolvency Law and the Sandbox Approach' (2018) 19 European Business Organization Law Review 715, 724.

the technology-neutral principle as a general rule due to a lack of theoretical definition. This may lead to a situation where scholars will take too optimistic an approach without taking the complete picture into consideration.[195] The third point refers to the evaluation of the suitability of the principle. It has been suggested that the rule should be used only as a starting point or a guiding principle rather than a final rule. One needs to consider whether regulation fits the society and its values and indeed whether regulation can really be neutral. There is some criticism suggesting that the technology-neutral regulation should be treated more as an aspiration. There is also an argument that the law is already embodied by technology and social and political choices, hence it is not neutral.[196] The fifth argument applies to uncertainty and reduction in competition following doubt that arises around the treatment of certain technology by the legally ambiguous terminology used. The last point relates to the aim of the application of technology-neutral regulation. In the author's view, creating the broad regulation shifts the burden to administrative agencies and the courts so shifting the responsibility and decisions regarding whether the law should apply new technology to them.[197]

Deciding on the correct approach to how a new technology should be regulated is no easy task. Policymakers need to choose between technology-neutral and technology-specific approaches. Technology-specific regulation relates to the legislation made specifically for a selected class of technology; hence the terms are very narrow and fall under the described category. As stated above, it creates limitations due to rapid changes in technology.

The first step in making the correct decision is a thorough knowledge of the technology together with its implementation and operational aspects. This is a difficult process as technology is constantly changing and each improvement will require changes in the law. This, in turn leads to additional costs and time which creates uncertainty for firms. The second step is to consider the application and usage of new regulations for other technologies and their adaptability. Policymakers will need to be highly engaged and fully understand the new innovative products.

International communities are looking to find the best way to minimise any legal uncertainty and challenges that may arise from the adoption of new technology. Application of the principle of technological neutrality may, on one hand respond to outdated rules; on the other, unforeseen technological developments in the near future may create difficulty with legal application. Therefore, not every country is willing to welcome the “old rules” to the “new” digital world.

[195] Paul Ohm, ‘The Argument Against Technology-Neutral Surveillance Laws’ (2010) 88 Texas Law Review 1691.
[196] Puhakainen and Vayrynen (n 193) 8.
[197] ibid 9.

Shadikhodjaev summarises the problem arising from the principle of technological neutrality and concludes that the principles should receive universal recognition and, if necessary, should be supported by flexible policy.[198]

3.3.4 Other forms of innovation

The next innovation that significantly impacts the financial market is blockchain and its regulatory aspect. As Werbach notes: 'the central question is not how to regulate blockchains, but how blockchains regulate'.[199] As with many other financial innovations, blockchain falls under the umbrella of contract and property law before any regulatory intervention is discussed and before any market failure can be identified. It is recognised as a significant development in information technology after the invention of the internet and has been called 'the technology [that will] most likely change the next decade of business'.[200] The new form of innovation is also identified as 'a novel solution to the age-old human problem of trust'.[201] In the general view, blockchain can be understood as a public ledger that keeps a record of every Bitcoin transaction, which is authenticated by several mathematical proofs, and it virtually impossible to hack.[202] It is divided into small databases called "blocks" which contain encrypted information about a certain number of transactions. Many highlight the fact that a blockchain-based system was created to support Bitcoin transactions.[203] When it is identified as a complex transaction, its basic function is quite simple. Every record is maintained and distributed on the ledger where everyone can keep a copy of the transactions which remain the same without having a central administrator. As has already been mentioned, one of the phenomena of the blockchain network model is the lack of intermediation, which is linked to a lack of a legal relationship between client and intermediary, called "account". Blockchain technology also opens the possibility of connecting the main aims of liquidity, and legal certainty more efficiently than the current intermediary process. All accounts are assigned to the root account which is maintained by a central depository. There are typically one or more central depositors per jurisdiction. Hence, the

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[198] Sherzod Shadikhodjaev, 'Technological Neutrality and Regulation of Digital Trade: How Far Can We Go?' (2021) 32 European Journal of International Law 1221.
[199] Kevin D Werbach, 'Trustless Trust. Trust, But Verify: Why the Blockchain Needs the Law' (2018) 33 Berkeley Technology Law Journal 489.
[200] Don Tapscott and Alex Tapscott, 'The Impact of the Blockchain Goes Beyond Financial Services By' [2016] *Harvard Business Review* <https://hbr.org/2016/05/the-impact-of-the-blockchain-goes-beyond-financial-services> accessed 10 October 2018.
[201] Werbach (n 199) 1.
[202] Satoshi Nakamoto, 'Bitcoin: A Peer-to-Peer Electronic Cash System' <https://bitcoin.org/en/bitcoin-paper> accessed 10 October 2018.
[203] Bitcoin transactions are provided in Bitcoin cryptocurrency, which was launched in 2009 by Satoshi Nakamoto and rapidly took over the world. As of May 2024, it holds $1.2bn—Coinmarketcap - Bitcoin, 'Coinmarketcap - Bitcoin' (*Coinmarketcap*) <https://coinmarketcap.com> accessed 1 May 2024.

investors are linked directly to a central ledger.[204] Based on this relationship, property rights arose, and contractual duties were created. On the other hand, blockchain is based on the concept of a distributed record. All information regarding market participants – "nodes" – is collected and constantly updated on a computer server. As a result, all transaction information looks identical at any node and there are no two-party (perhaps rather here 'intermediated' as all transactions are by nature at least two-party – client-intermediary and intermediary-infrastructure) relationships within the blockchain network. However, a mark of intermediation may still exist outside of the network when nodes are providing services on behalf of their clients which are not part of the network itself.[205] Additionally, the real "trust" person (eg, public authorities, banks) who provides a confirmation of the transaction does not exist. A software engine has assumed this function. The rights are allocated based on internal rules and agreed upon by parties upon joining the network. They are then followed by execution by algorithms. As a result, the contract in the blockchain is working on *ex-ante* terms, and there is a limitation of the *ex-post* review of contractual duties. The system is still premised on law as the 'agreed' rules are a contract with the force of law. In the case of court disputes, the court will consider if the internal rules have been applied. However, in some cases the right to sue may be limited as the other party to the transaction may prove to be virtually anonymous.[206] The new technology also brings simple benefits, for example, lower transaction costs, by replacing many private ledgers with a single distributed ledger, as well as providing confidence in transactions without relying on government/traditional institutions.

But the short history of blockchain has also seen failures. A well-known example is the DAO (Distributed Autonomous Organisation) case. DAO is an online crowdfunding system using self-executive software based on smart contracts. It is known as the decentralised application in which the standard corporate arrangements for debt, equity, and corporate governance can be encoded in the form of smart contracts. It is recognised as a 'new paradigm of economic cooperation […] digital democratisation of business'[207] and running on blockchain Ethereum platform based on autonomous code. Unfortunately, despite being an innovative solution, in 2016 one third of the money was stolen from the system overnight. As the DAO worked as an automated process, no one was able or even had the power to stop or reverse the hacker breach. This shows how closely code and law need to work together. However, the main point centred around trust in the software system. The example

[204] Philipp Paech, 'Securities, Intermediation and the Blockchain: An Inevitable Choice between Liquidity and Legal Certainty?' (2016) 21 Uniform Law Review 612.
[205] Philipp Paech, 'The Governance of Blockchain Financial Networks' (2017) 80 Modern Law Review 1073.
[206] ibid 1096.
[207] Christoph Jentzsch, 'Decentralised Autonomous Organisation to Automate Governance (Unpublished Manuscript)' <https://lawofthelevel.lexblogplatformthree.com/wp-content/uploads/sites/187/2017/07/WhitePaper-1.pdf> accessed 10 October 2018.

here is a language code used in smart contracts which to most people means nothing apart from lines of unintelligible words and signs. The question therefore arose how a court examining a smart contract can be sure that the terms of the contract are sufficiently certain? A similar situation arises when the duty of "good faith and fair dealing" is incorporated in the contract. There is no straight answer to how computers will behave and understand it or how they will judge whether this provision has been violated.[208] In short: complexity arises across new technological innovations.

Moving further, the most prominent part of the blockchain is the incorporation of the smart contract above. It has the potential to reshape our understanding of the legal position and centres on contract law. A smart contract is a "computer program" that automatically executes the terms and conditions agreed upon by both parties to the transaction. It is worth pointing out that the first definition of smart contract was introduced by Nick Szabo, who recognised it as:

> 'a set of promises, including protocols within which the parties perform other promises. The protocols are usually implemented with programs on a computer network or in other forms of digital electronics, thus, their contract is smarter than the paper-based ancestors'.[209]

In the current literature there are various definitions of a smart contract. Werbach and Cornell define it as 'self-executing digital transactions using decentralised cryptographic mechanism for enforcement'.[210] For Hsiao, a smart contract is 'a contract captured in code which automatically performs the obligations the parties have committed to in the agreement'[211], and which is 'design[ed] to ensure the performance without recourse to the courts'.[212] However, Raskin distinguishes between weak and strong smart contracts. By a weak smart contract he understands the situation in which the court is able to alter the contract after it has been executed. On the other hand, when the court is not able to make any changes due to the significant associated cost, it will be regarded as strong. Additionally, an alternative or even broader definition was proposed by Clack *et al*., who introduced traditional and non-traditional differentiation methods of enforcement.[213] This is similar to Raskin's

[208] Mark Giancaspro, 'Is a "Smart Contract" Really a Smart Idea? Insights from a Legal Perspective' (2017) 33 Computer Law & Security Review 825.
[209] Nick Szabo, 'Smart Contracts: Building Blocks for Digital Free Markets. Extropy Journal of Transhuman Thought' [1996] Extropy Journal of Transhuman Thought <https://www.fon.hum.uva.nl/rob/Courses/InformationInSpeech/CDROM/Literature/LOTwinterschool2006/szabo.best.vwh.net/smart_contracts_2.html> accessed 18 October 2018.
[210] Kevin Werbach and Nicolas Cornell (eds), 'Contracts Ex Machina', [2017] Duke Law Journal 313.
[211] Jerry IH Hsiao, 'Smart" Contract on the Blockchain -Paradigm Shift for Contract Law?' (2020) 14 US - China Law Review 685.
[212] Max Raskin, 'The Law and Legality of Smart Contracts' (2017) 1 Georgetown Law Technology Review <https://georgetownlawtechreview.org/wp-content/uploads/2017/05/Raskin-1-GEO.-L.-TECH.-REV.-305-.pdf> accessed 18 October 2018.
[213] Christopher D Clack, Vikram A Bakshi and Lee Braine, 'Smart Contract Templates: Foundations, Design Landscape and Research Directions' <https://arxiv.org/abs/1608.00771> accessed 10 October 2018.

weak and strong smart contracts.[214] Yet other authors present smart contracts as a fusion of technological development involving electronic contracts and cryptography, or see them as "autonomous software agents".[215] The history of smart contracts was theorised two decades ago[216], which means it was created independently long before blockchain and Bitcoin were introduced.[217] However, it has generated significant interest in recent times with Ethereum emerging as one of the best-known platforms for smart contracts after its launch in 2015. The smart contract creates a situation where human involvement is minimised with increasing efficiency of the agreement and limitation of any possible delays or errors[218] such as reducing the transaction/settlement time from days to minutes and the counterpart and settlement risks allow faster processing with capital. The background to this technology is based on Trustlees Public Ledger ("TPL"), which creates a decentralised place by removing the middleman and generating the possibility of the secure exchange of digital property over the network without disclosing any personal data.[219] The main characteristics of a smart contract are, first, it is created with the source code used on computers to minimise cost. Next, there is no room for doubt regarding the interpretation of a contract which means that if parties have agreed to terms, the contract will be binding. And third, disintermediation which allows the transfer of securely agreed assets between parties without relying on any centralised entity.[220]

As the use of smart contracts has increased, regulators and judges need to turn their minds to a legal framework and potential new classification to remedy the current legal uncertainty. However, there are a lot of new challenges, such as the difference between contractual execution and enforcement. Nowadays, most of the derivative trades are executed via automation on a day-on-day basis using coded computers which includes the contractual terms performed without human intervention. As Surden has stated with regard to computable contract: 'execution of the agreement is automated, but enforcement is not'.[221]

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[214] Raskin (n 212) 310.
[215] Werbach and Cornell (n 210) 5.; Vitalik Buterin, 'A Next-Generation Smart Contract and Decentralized Application Platform' [2022] Ethereum White Paper <https://finpedia.vn/wp-content/uploads/2022/02/Ethereum_white_paper-a_next_generation_smart_contract_and_decentralized_application_platform-vitalik-buterin.pdf> accessed 20 January 2019.
[216] Szabo (n 209) 3.
[217] Nick Szabo, 'Formalizing and Securing Relationships on Public Networks' (1997) 2 First Monday <http://journals.uic.edu/ojs/index.php/fm/article/view/548> accessed 10 January 2019.
[218] Institute of International Finance, 'Getting Smart: Contracts on the Blockchain' (2016) <https://www.iif.com/portals/0/files/private/32370132_smartcontracts_report_may_2016_vf.pdf> accessed 18 October 2018.
[219] Edward D Baker, 'Trustless Property System and Anarchy, How Trustless Transfer Technology Will Shape the Future of Property Exchange' (2015) 45 Southwestern Law Review 357.
[220] Joshua AT Fairfield, 'Smart Contracts, Bitcoin Bots, and Consumer Protection' (2014) 71 Washington and Lee Law Review Online <https://scholarlycommons.law.wlu.edu/cgi/viewcontent.cgi?referer&httpsredir=1&article=1003&context=wlulr-online> accessed 19 October 2018.
[221] Harry Surden, 'Computable Contracts', (2012) 46 University of California, Davis Law Review 629.

Another interesting point around linking smart contracts and legal contracts was raised by Ian Grigg in 2004 during the First IEEE Workshop on Electronic Contracting.[222] In this new approach, the smart contract creates *ex-ante* consequences, and a legal contract helps to resolve a potential issue by an *ex-post* review. Based on the above, a smart and legal contract matched perfectly. The project – called a "Ricardian contract" defines the main three components of contracts: legal code, computer code, and parameters. Legal code includes the readable text of a contract; computer code presents steps based on which smart contract will be executed; and the parameters for the execution of a contract. Both used cryptographic hashes so that if any issues arise under the smart contract, the contract can be changed into a legal contract to resolve disputes.

Many writers have challenged the usefulness of the smart contract form, suggesting that the smart contract will be used for small value or simple transactions – eg, the purchase or sale of a motor vehicle. However, in certain cases a smart contract will not meet the standards of some "human" contracts. For example, problems surround how concepts such as "reasonable" and "best efforts" will be represented in the code. Additionally, there is a common belief among authors that only some parts of an agreement can be translated into a smart contract such as the exchange of payments or transfer of titles or assets. The other aspects – eg, monitoring a warranty – may still have to take place manually. This will increase costs as complex transactions will involve lawyers drafting legal contracts which still need to be translated into code by people with adequate coding skills.[223] The same problem can be seen where contractual obligations are complex and require the parties to have another agreement to cover aspects not included in the agreement or to include a possible mechanism for further amendment of the contract terms between parties.

An interesting point also arises when parties are not satisfied with the result of the executed contract and resort to litigation. It is worth noting that if the execution took place in a platform on the blockchain, it could, as pointed out earlier, create difficulties in locating the anonymous party to the transaction. Even in the party can be identified but is in a different country/ies problems arise with instituting legal action against a party who is subject to different jurisdictional rules. The main question here is who will be liable if disputes arise – there is clearly no simple answer. Let us consider the DAO example above. The DAO itself is not recognised as a corporate and has no human involvement – it is self-governing and managed by codes. This cannot be classified as a specific regulation. Hence, if no one runs the "company" or there are no human participants, the court will

[222] Ian Grigg, 'The Ricardian Contract', *Proceedings. First IEEE International Workshop on Electronic Contracting, 2004* (IEEE 2004) <http://ieeexplore.ieee.org/document/1319505/> accessed 9 November 2018.

[223] Andy Robinson and Tom Hingley, 'Smart Contracts: The next Frontier?' <https://blogs.law.ox.ac.uk/business-law-blog/blog/2016/05/smart-contracts-next-frontier> accessed 20 October 2018.

probably look to the person "behind the scenes" – ie, the person who designed "the thing" or the first human mover behind the code.[224] However, it is not that simple to identify the person who started "the big thing"[225] or even to sue it. This illustrates the limitation of liability in the context of innovation.

Another issue worth mentioning that arises between smart and classic contracts is trust. In the standard contract, if a "fiduciary" relationship is created between the parties a fiduciary duty arises. In a smart contract, however, trust is put in computer algorithms which create a "trustless trust".[226]

The smart contract is increasingly impacting on many aspects of daily life not only financial markets. Hence, there should be greater focus on applying private law rather than over regulation. This is a challenging process as, together with innovation, new legal uncertainty creates still more difficulties.

3.4 Impact on the firm's business model

Companies constantly seek greater legal certainty to better understand the regulatory framework and to maintain their market position. In this sense, firms may be the agents creating an environment in which innovation is more difficult. This situation applies to both existing firms and new innovative businesses. The increased regulatory landscape will affect any firm, often changing the company's organisational structure.

Young innovative businesses may need to prepare to adopt new regulations. Financial technology brings new emerging services and applications to the financial market and some forms of regulatory uncertainty which may affect the business model. In the era of increasing technological changes, firms face many regulatory challenges in anti-money laundering, privacy, security, and capital requirement areas. Additionally, the difference in regulatory requirements for traditional financial institutions and fintech start-ups depends on the financial services they provide. For example, banks are obliged to have a reserve banking system. Further guidance is provided to a financial institution, showing what can be lent based on the capital held by the bank. This restriction does not exist in the case of fintech start-ups as technically they do not lend (eg, P2P lending).[227] A further challenge exists

[224] Stephen D Palley, 'How to Sue a Decentralised Autonomous Organisation' *Coindesk* (2016) <https://www.coindesk.com/markets/2016/03/20/how-to-sue-a-decentralized-autonomous-organization/> accessed 1 November 2018.
[225] An example is the Blockchain anonymous platform created by Satoshi Nakamoto, if he ever existed.
[226] Alexander Savelyev, 'Contract Law 2.0: "Smart" Contracts as the Beginning of the End of Classic Contract Law' (2017) 26 Information & Communications Technology Law 116.
[227] In Lee and Yong Jae Shin, 'Fintech: Ecosystem, Business Models, Investment Decisions, and Challenges' (2018) 61 Business Horizons 35.

in the technological integration of new applications within a firm's legacy systems. In this situation, financial institutions create partnerships or joint ventures with innovative businesses via corporate venture funds and incubators.[228] A similar situation occurred in the media industry where firms started introducing a new investment approach to cooperate with innovative businesses. They use corporate venture capital ("CVC") to improve their management approach by developing new and adjusting old business models.[229] Firms need carefully to consider how "new" regulations will affect the company's business model. If they fail to take the necessary steps, they may potentially lose value they could have gained by following the compliance standard. What is more important, they can lose their clients and reputation.

Technological companies of all sizes have started to focus on business-model innovation as new opportunities arise and change how businesses are driven. According to Berniker and Comes, this kind of business model is 'extremely valuable when done right, creating new markets or transforming existing ones and generating billions of dollars of market value'.[230] This links with changes in underlying market conditions, so companies that are slow to respond may run into difficulties and fail. Others who pick up changes earlier and apply them within their business models will succeed. There are many positive aspects of knowing a company's business model. For example, it can help to understand business from the inside including the management organisation and the innovation-product process in greater detail. Additionally, it is recognised as a 'driver of competitive advantage and growth'.[231] For example, Amazon entered the market with the technology behind the online sale of books. However, the company's success was not based on the profit from book sales but on the timing of payments and deliveries. Amazon also has lower resource costs and the entire business is conducted online using robotics and artificial intelligence.[232]

An innovative business model was presented and it applies to all companies investing in new products and services. However, taking a narrower view, Lee and Shin distinguish six Fintech business models related to payment, wealth management, crowdfunding, lending, capital market, and insurance

[228] Daniel Drummer and others, 'FinTech – Challenges and Opportunities' (McKinsey & Co 2016) <https://www.mckinsey.com/~/media/McKinsey/Industries/Financial%20Services/Our%20Insights/FinTech%20Challenges%20and%20Opportunities/FinTechChallenges%20and%20Opportunities.ashx> accessed 1 February 2019.
[229] EMMA Conference Paper, 'Development and Sustainability in Media Business, New Business Development in the Media Industry : An Analysis of Media Firms Corporate Venture Capital Investments' (Hosted by the Business School of the University Hamburg 2015) <https://www.media-management.eu/emma-conferences/hamburg-2015/> accessed 1 February 2019.
[230] Stacy Comes and Lilac Berniker, 'Business Model Innovation' in Daniel Pantaleo and Nirmal Pal (eds), *From Strategy to Execution* (Springer Berlin Heidelberg 2008) 65 <http://link.springer.com/10.1007/978-3-540-71880-2_4> accessed 9 May 2019.
[231] ibid.
[232] ibid 66–67.

services.[233] First, the payment business model is the most rapidly developing, simple to use, and offers various payment capabilities. It is the most used daily, characterised by mobile wallets such as Apple Pay, Google Wallet, Samsung Pay, peer-to-peer mobile payments, real-time payments, and digital currency exchange and payments. The second applies to the wealth management Fintech business model and offers automated advice services to clients with small amounts of money or more basic needs. The advice is generated by algorithms based on data entered by the client. The service can be fully automated, half automated, or involve human interaction.

The crowdfunding business model is another which links innovators with investors. There are different types of this model, such as reward-based, donation-based, and equity-based crowdfunding. Further, there is a lending business model which includes P2P (peer-to-peer) lending in which individuals can borrow or lend money to each other. The structure is more efficient and, most importantly, the interest rate is lower than that of banks. It offers faster services with lower operational costs for both parties to the transactions. But the most promising is the capital market business model which allows investors and traders to buy or sell commodities or equities in real time. Services are available to users in the form of applications on mobile devices. The last in Fintech is the insurance business model which creates a direct relationship between the customer and the insurance provider offering products and services tailored to the client's needs. This may include car, life, or health insurance.

3.5 Interaction with law

Many academics are not concerned with innovation *per se* but are concerned with the relationship between innovation and other concepts. For example, the interaction between technology and law focuses on finding answers to how to regulate innovation or even whether to regulate it. Together with the development of new technology and innovation problems arise regarding the adaptation of the relevant legal framework. Many scholars reflect this as a "law losing the race for technology" or compare it to the familiar tale *The Tortoise and the Hare*.[234] In this scenario, the law is the "tortoise" that is recognised as unable to keep pace with the fast-growing technology.

[233] Lee and Shin (n 227) 38–40.

[234] Gary E Marchant, Braden R Allenby and Joseph R Herkert (eds), *The Growing Gap Between Emerging Technologies and Legal-Ethical Oversight: The Pacing Problem*, vol 7 (Springer Netherlands 2011) <https://link.springer.com/10.1007/978-94-007-1356-7> accessed 20 February 2019; Lyria Bennett Moses, 'How to Think about Law, Regulation and Technology: Problems with "Technology" as a Regulatory Target' (2013) 5 Law, Innovation and Technology 1; Lyria Bennett Moses, 'Agents of Change: How the Law "Copes" with Technological Change' (2011) 20 Griffith Law Review 763.

In American literature, Marchant recognises the "pacing problem" which European scholars term a "challenge of regulatory connection" or "regulatory disconnection". This arises when technology develops faster than its regulation and leaves the law behind. As articulated by Marchant and Wallach, 'at the rapid rate of change, emerging technologies leave behind traditional governmental regulatory models and approaches which are plodding along slower today than ever before'.[235] Similarly, Moses associates the pacing problem with an uncertainty that may arise with the application of existing law and shows a need to manage possible negative aspects and risks. She focuses on the new regulatory context and the need to deal with outdated laws.[236] In response, Marchant proposed two options for resolving the problem. The first is to constrain technological development. The second focuses on improving the legal processes to ensure they will fit with emerging technologies.[237] The first solution is highly unlikely as technology has not only a significant impact on society, but also has military and economic value. As a result, the second option is more likely to find favour. Notwithstanding the uncertainty and criticism surrounding it. As early as 1960 Cardozo pointed out that 'with new conditions, there must be new rules'. [238] Disruptive innovation creates regulatory issues and complexity as more participants need to be involved. Pierce[239] and McGarity[240] refer to this as the "ossification" of rulemaking where regulatory processes are delayed, resulting in outdated and ineffective regulations. If the additional legal basis is necessary, permanent or *ad hoc* bodies need to review the issue and advise the government. However, there are views that some of the technological changes can fit within the current regulatory system. It is worth noting that not only can technology shape the law; law may play a part in shaping technology.

From the regulatory perspective, another important aspect of innovation is related to the "Collingridge dilemma". Collingridge drew attention to the obstacles that regulators can face when responding to new technology. He identified two problems. The first concerns a lack of information about newness, its impact and its risks; the second, higher than expected implementation costs of new regulations due

[235] Gary E Marchant and Wendell Wallach, 'Governing the Governance of Emerging Technologies' in Gary E Marchant, Kenneth W Abbott and Braden Allenby (eds), *Innovative Governance Models for Emerging Technologies* (Edward Elgar Publishing 2013) 136.
[236] Lyria Bennett Moses, 'Recurring Dilemmas: The Law's Race to Keep Up With Technological Change' (2007) 21 University of New South Wales Faculty of Law Research Series <https://law.bepress.com/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1023&context=unswwps-flrps> accessed 9 May 2019.
[237] Marchant, Allenby and Herkert (n 234) 19–20.
[238] Benjamin N Cardozo, *The Nature of the Judicial Process* (65th print, Yale University Press 1960) 137.
[239] Richard J Pierce, 'Seven Ways to Deossify Agency Rulemaking' (1995) 47 Administrative Law Review <https://www.jstor.org/stable/40709769> accessed 2 February 2019.
[240] Thomas O McGarity, 'Some Thoughts on "Deossifying" the Rulemaking Process' (1992) 41 Duke Law Journal 1385.

to hi-tech products.[241] In his view, regulators need to challenge the "uncertainty paradox".[242] Often regulatory decisions need to be made without reliable information regarding the impact on the market, society, and technology development. This is called an informational problem as there is a knowledge gap between them and innovators in understanding the products and services. In most situations, they have limited access better to understand these products and services, particularly in the case of incentive knowledge (what facilitates material creation), emergent knowledge (the type of information generated by the innovation), and interpretative knowledge (why we think this is an innovative product or service).[243]

Yet another challenge is whether the product will be authorised, how much time the regulator needs to reach a decision and allow its commercialisation, and what conditions will be imposed. However, there are several different technological innovations where the Collingridge dilemma will not apply. It depends, for the most part, on the complexity of the innovative product and how closely it will fit into the current market.

Creating a new innovative system can bring positive and negative aspects to the regulatory framework. Innovations and changes in the financial environment impact regulatory reforms. The financial markets have been regulated in terms of products, portfolio investments, insurance, and services offered to consumers. The situation changes with the development of information and communication technologies as they can alter the underlying cost of products and the industry's competition structure.

Blind argues that different regulations[244] could have a different impact on innovation. Moreover, recent attention has focused on various dimensions that impact innovation firms' activities. One is the different impact of the same regulation on multiple firms. This can depend on the size and maturity of the firm. For example, young incumbents are less familiar with regulatory requirements but more flexible and adaptable to changing financial environments. Secondly, there is also differentiation in the short- and long-term regulatory impact on firms. According to Blind, in the short-term it 'required regulatory compliance and creates a burden for most companies, which might be negative for innovation'. However, in the long term, 'the innovation impact is very regulation specific'.[245]

[241] David Collingridge, *The Social Control of Technology* (St Martin's Press 1980).
[242] Marjolein van Asselt, Ellen Voss and Tessa Fox, 'Regulating Technologies and the Uncertainty Paradox' in Morag Goodwin, Bert-Jaap Koops and Ronald Leenes (eds), *Dimensions of Technology Regulation* (Wolf Legal Publishers 2010).
[243] Alfons Bora, 'Knowledge and the Regulation of Innovation' (2010) 7 Poiesis & Praxis 73.
[244] Blind examined the impact of social, economic, and institutional regulations. Knut Blind, 'The Impact of Regulation on Innovation' (Nesta Working Paper 12/02 2012) <www.nesta.org.uk/wp12-02> accessed 4 May 2019.
[245] ibid 3.

Furthermore, regulations related to technological innovation are delayed as the technological progress increases faster than the new regulation occurs (pacing problem). Another problem may arise with implementing new legislation, which probably will be linked to increased compliance costs for firms. This may discourage investors and reduce innovative willingness. Additionally, the increase in regulations can, if not properly managed, cause overlapping between European and national regimes and a lack of consistency and uniformity across member states. Further, a lack of EU legislation may create barriers to new entrants to the internal markets. This creates uncertainty for investments or can even have an impact on reducing the progress in technological development.[246]

On another hand, potential benefits may flow from a new regulatory system. It may improve the relationship between regulators and firms and increase information on technological developments.[247] Good design legislation may encourage firms to innovate and invest in new products, which is crucial for economic growth.[248] Moses identifies four reasons why legal changes may be necessary in the wake of technological developments. She states that new forms of conduct and rules of law are vital to the proper functioning of a legal system. However, she also proposes that, if this is necessary, prohibition of some technology applications should be introduced – for example, for rules that are no longer justified or have fallen into desuetude, cannot fit into the scope of current technology, or are not cost-effective.[249]

Technological changes occur in almost all sectors. The regulatory framework requires improvement in the policy area to make it more innovation friendly. This should apply on both EU and national levels if it is to result in improving collaboration between markets and create a robust ecosystem in Europe.[250] The European Commission has pointed out that Europe needs more pro-innovation regulatory context to improve investment strategy within Europe. This was recently highlighted in many agendas and projects within the EU.[251] Blind offers some proposals for a more innovation-friendly regulatory policy. He starts with improvement in the evaluation of innovations for realising

[246] ibid 5.
[247] CARR, 'CARR - Centre for Analysis of Risk and Regulation, Regulation and Innovation' (2016) <http://www.lse.ac.uk/accounting/CARR/pdf/Regulators-forum---innovation-number-9.pdf?from_serp=1> accessed 1 June 2019.
[248] Knut Blind, Sören S Petersen and Cesare AF Riillo, 'The Impact of Standards and Regulation on Innovation in Uncertain Markets' (2017) 46 Research Policy 249.
[249] Lyria Bennett Moses, 'Why Have a Theory of Law and Technological Change?' in Gary E Marchant and Wendell Wallach (eds), Gary E Marchant and Wendell Wallach, *Emerging Technologies: Ethics, Law and Governance* (1st edn, Routledge 2020) <https://www.taylorfrancis.com/books/9781000108927/chapters/10.4324/9781003074960-25> accessed 9 May 2019.
[250] European Parliament Committee on Economic and Monetary Affairs (n 117) 6.
[251] European Commission, 'Single Market Strategy, Investment Plan for Europe, The Commission's Open Innovation Agenda' <https://single-market-economy.ec.europa.eu/single-market/single-market-strategy_en> accessed 14 May 2018.

the regulatory goals. Second, regulators need to be more proactive when faced with technological trends which will result in an increase in the quality of the regulatory framework. Third, the implementation procedure must be improved to foster innovation and minimise risks and costs to companies. Further, given the constantly changing financial and market environment, regulators should adopt a plan for timely review of the regulations while bearing in mind that frequently reviewed regulations may lead to increased risk for companies. A further issue is the improvement of cooperation and coordination between different regulatory bodies – innovation is complex and requires interaction with all relevant regulatory authorities.[252]

The points raised by Blind show that the relationship between regulation and innovation is complex and 'lies in the substance of regulation rather than its mere existence'.[253] Simple and clear rules support the development of innovation, but they are not able to adjust the system with the necessary urgency. It should be borne in mind, however, that fewer regulations will not lead to greater innovation and that innovations invariably bring with them additional costs for firms and may restrict their freedom of action.

Currently, regulators are facing challenges to create and implement new legal approaches without forgetting the original regulatory objectives such as making the market competitive, protecting investors, and ensuring systemic stability. Hence, establishing a new regulation requires choosing the right degree and form of regulation, which is essential from a technological perspective. Not only can regulation impact innovation, but technological changes may also affect regulation.[254]
The regulators must find the proper boundaries to understand the link between technology and regulations. According to Brownsword and Somsen, the responsibility should be passed to the regulators and politicians to set some form of restriction on technological innovations, manage the risks, and implement a governance environment.[255] Regulations should support the development of new technology and prioritise the improvement of people's lives. However, limitations can occur in relation to control as rules imposed by the market or military enjoy precedence.

The link between technology and regulation is termed "techno-regulation". Brownsword and Somsen state that 'the law can never rival the innovativeness of technology […] there is a conservative element to the law that accounts for its attraction as a calculable regulator of human interactions and

[252] Blind (n 244) 26–27.
[253] European Commission, 'Better Regulations for Innovation-Driven Investment at EU Level' (n 128) 10–11.
[254] OECD, 'Regulatory Reform and Innovation' (2012) 11 <https://web-archive.oecd.org/2012-06-15/164801-2102514.pdf> accessed 1 May 2019.
[255] Roger Brownsword and Han Somsen, 'Law, Innovation and Technology: Before We Fast Forward—A Forum for Debate' (2009) 1 Law, Innovation and Technology 1.

transactions'.[256] Therefore, the biggest challenge for regulators is to find a way to stay connected with trends in both regulation and technology. In a research paper, Baldwin and Black state that 'regulation is really responsive when it knows its regulatees and its institutional environments when it is capable of deploying different and new regulatory logics coherently, when it is performance sensitive and when it grasps what its shifting challenges are'.[257] Based on the above, the regulators should be aware of changes in the financial-technological environment and have a thorough knowledge of the market participants. In the perfect world technology and regulation would be connected and law would evolve in tandem with innovation changes whenever they occur. The major focus is on the legal approaches used by regulators. The traditional hard-law or self-regulation approach may be forced. However, the hard-law approach may be softened, for example, by applying the 'technology-neutral'[258] approach. This can be done by delegating some power to relevant representatives.[259]

Another issue is competition-enhancing reforms to promote competition between small and large companies. The new advanced technology and globalisation put a lot of pressure on all OECD countries to adjust their regulatory environment.[260]

3.6 Domestic and international cooperation

With innovations, new challenges arose for regulators and policymakers to find the right balance between innovation, financial stability, and consumer protection. The modern regulatory era constantly focuses on restraining technological risks.[261] The complexity between innovation and the current regulatory framework may result in 'mismatches, with companies and service providers being regulated differently even if they perform substantially identical activities and with some activities not being well captured by the definition and/or scope of activities in the current regulation'[262]. In this case, the EC focused on improving the relationship between innovation and the regulatory environment. At an early stage, the EC identified that 'there is no simple relation between innovation

[256] ibid 3.
[257] Robert Baldwin and Julia Black, 'Really Responsive Regulation' (2008) 71 The Modern Law Review 43, 43.
[258] Technology neutrality was highlighted in the UK policy document on ICT regulation where Koops stated that 'Regulation should not regulate the technology itself, but only the effects of technology use'. For a more comprehensive analysis, see Bert-Jaap Koops, 'Should ICT Regulation Be Technology-Neutral?' in Bert-Jaap Koops and others, *Starting Points for ICT Regulation*, vol 9 (TMC Asser Press 2006) <http://link.springer.com/10.1007/978-90-6704-665-7_4> accessed 9 May 2019.
[259] Brownsword and Somsen (n 255) 29.
[260] OECD, 'Innovation and Growth, Rationale for an Innovation Strategy' (OECD 2007) <https://web-archive.oecd.org/2012-06-15/133943-39374789.pdf> accessed 1 May 2019.
[261] Jonathan B Wiener, 'The Regulation of Technology, and the Technology of Regulation' (2004) 26 Technology in Society 483.
[262] European Parliament Committee on Economic and Monetary Affairs (n 117) 5–6.

and the regulatory environment. No strict rules can be set on an optimal level of numbers of regulations in a domain, on their level of stringency and on their stability over time'.[263]

The proper balance between innovation and regulation can be achieved by harmonising interconnectedness between different authorities. The cooperation is necessary to minimise recurring uncertainty, barriers to entry, and inefficiency within the market.[264] In the financial markets, regulators have introduced various projects to support innovation firms. One of them is the Financial Conduct Authority ("FCA") – the conduct and prudential regulator for financial services firms and financial markets in the UK. The financial regulatory body operates independently of the UK government and has launched many initiatives for firms investing in innovation. The FCA launched Project Innovate in 2014 to foster competition in the market by supporting small and large firms with new innovative businesses that could improve consumers' experience.[265] The project was initially divided into five parts focusing on innovative services to encourage firms to invest in innovative products. One of these is the "Regulatory Sandbox" which was started in 2015. as a platform where firms may test their products and services with real consumers in a live market environment. This project aims to help new innovative firms to enter the regulatory environment by providing individual guidance and informal steers without sending enforcement action letters. Every company which fulfils the criteria and standards can join the project. The focus is also offers support in the identification of appropriate consumer protection and provide better access to finance for innovative firms. As more innovative products reach the market, firms and potential investors feel uncertain about risks and regulatory frameworks. The Regulatory Sandbox enables firms to manage regulatory risks by testing different solutions and tailoring services to market needs. Regulatory Sandbox is recognised as a "safe space" for firms and is the first experiment in regulatory design applied to technology-innovating firms organised by the FCA. The major benefit flowing from this initiative is increasing efficiency in competition in the interest of consumers. For example, by minimising the time and cost of introducing a new idea to the market, improving access to finance for innovative firms, and expanding the range of innovative products to be tested. This and other experiments introduced by the FCA represent a significant step in improving the relationship between regulators and firms. The cooperation will improve how consumers will be protected in relation to the new products before they enter the mass market.[266] The FCA confirmed the success of the first year of Regulatory Sandbox operation, with 75% of firms completing their test in the first cohort (77% in the second cohort). According to the FCA - Regulatory Sandbox Lessons Learned Report, around 90%

[263] European Commission, 'Better Regulations for Innovation-Driven Investment at EU Level' (n 128) 9.
[264] OECD, 'Regulatory Reform and Innovation' (n 254).
[265] More information about Project Innovate: FCA, 'Project Innovate' <https://www.fca.org.uk/firms/innovation>.
[266] FCA, 'Regulatory Sandbox' (2015) <https://www.fca.org.uk/publication/research/regulatory-sandbox.pdf> accessed 3 May 2019.

of firms launch their products in the broader market after testing. This initiative, especially the FCA's oversight, helps innovators to secure funding from investors.[267] Another benefit of the sandbox test is the possibility of learning about consumer uptake, adjusting the business model to clients' needs, and building appropriate consumer protection safeguards. Firms participating in the testing in the first year came from various sectors, including insurance, pension, retail banking, investments, lending, and wholesale.

In the next step, the FCA introduced Digital Sandbox, where firms can virtually test their products and solutions without entering a real market at an earlier stage of development – the so-called "proofs of concept" ("POC"). The Sandbox contained compliant datasets (including the General Data Protection Regulation ("GDPR")) set up in a secure environment. A company can, therefore, safely test and validate its innovative solutions with the help of industry mentors. The first pilot with new businesses started in 2020.[268]

Additionally, the FCA introduced the Direct Support Team for innovative businesses which plans to apply for authorisation or another form of permission. Innovation Pathways can also help understand the regulatory regime and challenges that firms may face at the onset of their journey to develop an innovative product.[269] The milestone in the Innovation Hub project was the creation of the Advice Unit, which provides regulatory feedback to firms interested in developing automated advice models based on lower-cost advice and guidance to consumers. The feedback aims to help firms understand its model's regulatory implications. Automated advice has become a focus area in recent years due to increasing interest in financial automation, resulting in the possibility of delivering advice or guidance to unserved or underserved consumers a lower cost. The automated advice service is based on providing digital advice, partially or even without the support of human intervention, where the core elements, such as a collection of fact-find information, underwriting information, and customer risk profiling, are automated. Moreover, the FCA has created and published several tools and resources to help firms with financial advice. One of these is signposts to existing rules and guidance based on questions raised by firms.[270] As a step forward, the FCA combined mention above the Direct Support team and the Advice Unit and introduced Innovation Pathways in 2022 which created a place to

[267] FCA, 'Regulatory Sandbox Lessons Learned Report' (2017) <https://www.fca.org.uk/publication/research-and-data/regulatory-sandbox-lessons-learned-report.pdf> accessed 1 May 2019.
[268] For more information visit the Digital Sandbox website: FCA, 'Digital Sandbox' <https://www.fca.org.uk/firms/innovation/digital-sandbox> accessed 1 June 2019.
[269] For more information visit the FCA website: FCA, 'Innovation Pathways' <https://www.fca.org.uk/firms/innovation/innovation-pathways> accessed 1 June 2019.
[270] For more information visit the FCA website: FCA, 'Automated Advice: Existing Rules and Guidance' <https://www.fca.org.uk/firms/innovation/innovation-pathways/automated-advice-rules-guidance> accessed 1 June 2019.

improve the support and simplify the application process for firms. Innovation Pathways will still help innovative businesses understand the regulation and navigate within the current regulatory environment. New businesses will also receive help in closing the gap in the advice market and receive regular feedback from the regulator. As the advice market is growing, the regulator is obliged to keep an eye on the constant changes in the investment market. In its last review[271], the FCA noted that a significant number of people are still not investing their money preferring rather to hold cash and so missing out on the potential opportunity to increase their funds.

However, there is more needed to dispel regulatory doubts. Another initiative is RegTech[272] which is based on new technology services to help overcome regulatory challenges. After the 2007/2008 financial crisis, the regulatory requirements increased significantly. Firms need to deal with higher regulatory standards. In 2015, the government announced that 'the FCA, working with the PRA, will also identify ways to support the adoption of new technologies to facilitate the delivery of regulatory requirements – so-called "RegTech"'.[273] Additionally, the FCA has organised TechSprints meetings to resolve many financial services issues.[274]

The last initiative focuses on domestic, regional, and international engagement to promote UK innovative businesses to enter overseas markets by signing cooperation agreements with other regulators – eg, the Australia Securities and Investments Commission ("ASIC"), the Monetary Authority of Singapore ("MAS"), the Hong Kong Monetary Authority ("HKMA"), and the Ontario Securities Commission ("OSC"). Recently, the FCA signed an arrangement with the US Commodity Futures Trading Commission ("CFTC") to collaborate and support innovative firms through LabCFTC and FCA Innovate.[275] This initiative helps a creative business to engage with international regulators and facilitate entry into the other's market. The support is provided before, during, and after authorisation to reduce regulatory uncertainty for firms operating in the new markets. Moreover, HM Treasury presented a policy paper, 'Fintech Sector Strategy', which contains

[271] FCA, 'Evaluation of the Impact of the Retail Distribution Review and the Financial Advice Market Review' (2020) <https://www.fca.org.uk/publication/corporate/evaluation-of-the-impact-of-the-rdr-and-famr.pdf> accessed 2 January 2020.
[272] In 2015 the FCA issued a Call for Input to seek broader views on how RegTech should progress. FCA, 'Call for Input: Supporting the Development and Adoption of RegTech' (2015) <https://www.fca.org.uk/publication/call-for-input/regtech-call-for-input.pdf> accessed 20 June 2020.
[273] HM Treasury, 'March Budget 2015' <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/416330/47881_Budget_2015_Web_Accessible.pdf> accessed 21 May 2021.
[274] For more information, please visit FCA, 'TechSprints' <https://www.fca.org.uk/firms/innovation/techsprints> accessed 6 June 2021.
[275] US Commodity Futures Trading Commission, 'US CFTC and UK FCA Sign Arrangement to Collaborate on FinTech Innovation, Release Number 7698-18' (February 2018) <https://www.cftc.gov/PressRoom/PressReleases/7698-18> accessed 23 August 2021.

action and steps that will be taken to create a better place for Fintech businesses in the UK. The key focus will be on improving competition and reducing barriers to entry and growth.[276]

Since the development of innovative financial technology has started to play a significant role across the globe, most regulators have followed the new trend and incorporated the regulatory sandboxes to help tackle the new regulatory problems.[277] The 'safe space' creates an environment in which firms can test new products and receive relief from regulatory requirements. At the same time, the regulatory agencies from the United States, Germany and Luxembourg decided to step back and not create the sandboxes playground. This situation shows that there are many other ways of helping and supporting the development of the fintech ecosystem – eg, through research development, legal and regulatory reform, creation of contact points for firms, investment promotion and marketing points, as well as the establishment of incubators and accelerators. All these elements make a crucial contribution to building a Fintech ecosystem.

The Regulatory Sandbox is one of the ways to support disruptive innovation and promote competition within the financial markets. The FCA highlighted three potential benefits flowing from the regulatory sandbox. First, applies to better access to finance for the Fintech firms, as investors will feel more confident with the risk assessment. Second, the time to market can be reduced at a lower cost allowing a faster introduction of products. The third benefit relates to situations where more innovative products can reach the markets. As a result of regulatory uncertainty, some of the innovations are disregarded and forgotten at the early stage. With the possibility of testing the product early on, firms can manage the regulatory risks and make improvements over time.[278]

To be a part of a 'sandbox playground', a firm needs to fulfil the entry-level criteria. First, the new innovative firm needs to confirm whether its product will fit the scope required by regulators and if it is suitable for the sandbox. In this case, innovative service needs to support the financial services industry, be a genuine innovation, and offer benefits to consumers.[279] Additionally, regulators need to judge whether the "innovative" product, service, or activity will require a sandbox approach or, for example, can be covered by existing regulations and laws. The participants must prepare well and

[276] HM Treasury, 'Fintech Sector Strategy: Securing the Future of UK Fintech' (2018) <https://assets.publishing.service.gov.uk/media/5ab295dfed915d4f30b955ad/Fintech_Sector_Strategy_print.pdf> accessed 23 October 2021.
[277] Buckley and others found that over 50 countries around the globe incorporated regulatory sandboxes. See Appendix A - Sandboxes around the world - Ross P Buckley and others, 'Building FinTech Ecosystems: Regulatory Sandboxes, Innovation Hubs and Beyond' (2019) 53 European Banking Institute Working Paper Series <https://www.ssrn.com/abstract=3455872> accessed 9 May 2021.
[278] FCA, 'Regulatory Sandbox' (n 266) 5.
[279] FCA, Eligible criteria for Regulatory Sandbox - visit FCA, 'Apply to the Regulatory Sandbox' <https://www.fca.org.uk/firms/innovation/regulatory-sandbox/apply> accessed 2 May 2021.

pass all three stages: the development stage, the understanding the regulatory environment stage, and the risk assessment stage.[280] Apart from the entry criteria, regulatory sandboxes define the grounds on which participants may be withdrawn from the programme. This may prove necessary if risks exceed benefits, the firm is not compliant with laws and regulations imposed, and the objective of the sandbox is not achieved. However, different eligibility criteria for entry depend on the regulatory agency and respective laws of the country where the application is processed.[281]

Under the scope of the requirements, Buckley and others distinguish four different restrictions. The first involves sectoral limits. In some countries, such as Hong Kong or Switzerland, the sandbox is limited to already authorised financial institutions. Similarly, but not to the same extent, in the US, Arizona state lowers the entry barriers in three areas: money transmission, investment advice, and consumer lending with the exclusion of insurance firms.[282]

The second limitation relates to regulated entity restrictions. This means that in countries such as the Netherlands, Brunei, and Abu Dhabi, only newly created firms are allowed to participate, whereas existing and regulated firms may apply only for non-action letters and waivers, or receive individual guidance in better understanding the legal requirements.

The third restriction limits the type of customer who can be targeted. Again, the difference in limitation depends on regulatory agency requirements as they can impose or dismiss the restrictions. In the UK, for example, the 'type of customers should be appropriate for the type of innovation and the intended market, but also […] the type of the risks they are exposed to'.[283] In Hong Kong, the services are open to limited numbers of participating customers such as 'staff members or focus groups of selected customers';[284] while in Singapore, the applicant may choose its type of customer, which must be documented in the business model for sandbox purposes.[285] All the regulators, however, have the right to impose restrictions at any time.

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[280] FCA, 'Regulatory Sandbox' (n 266) 7.
[281] Dirk A Zetzsche and others, 'Regulating a Revolution: From Regulatory Sandboxes to Smart Regulation' (2017) 23 Fordham Journal of Corporate and Financial Law 31.
[282] Paul Watkins and Evan Daniels, 'First in the Nation: Arizona's Regulatory Sandbox' (2018) 29 Stanford Law & Policy Review 9.
[283] FCA, 'Default Standards for Sandbox Testing Parameters' (2017) <https://www.fca.org.uk/publication/policy/default-standards-for-sandbox-testing-parameters.pdf> accessed 15 December 2019.
[284] Hong Kong Monetary Authority, 'Fintech Supervisory Sandbox (FSS). Letter from Arthur Yuen, Deputy Chief Executive' (October 2016) <https://www.hkma.gov.hk/media/eng/doc/key-information/guidelines-and-circular/2016/20160906e1.pdf> accessed 20 April 2019.
[285] Monetary Authority of Singapore, 'Fintech Regulatory Sandbox Guidelines' (2016) <https://www.mas.gov.sg/-/media/MAS/Smart-Financial-Centre/Sandbox/FinTech-Regulatory-Sandbox-Guidelines-19Feb2018.pdf?la=en&hash=B1D36C055AA641F580058339009448CC19A014F7> accessed 9 May 2020.

The fourth restriction is on the time and size used in the sandbox. In most cases, the period will be limited by rules upfront or on a case-by-case basis.[286] The period may range from 6 to 24 months depending on the regulator, with the possibility of an extension. FINMA (Swiss Financial Market Supervisory Authority) introduced the restriction regarding size and so is not time-limited. Provided that the Fintech companies do not exceed CH 100 million in public deposits, they will not be subject to a licensing requirement.[287]

3.7 Regulating Fintech: How to achieve a level playing field

Worldwide discussion is ongoing to find the answer for how properly to regulate Fintech.
This task is complex for regulators, and the best approach to assess innovation is debatable.[288] Buckley and others highlight an interesting point of view in their analysis of four possible approaches to innovation: doing nothing; being flexible and forbearance; using restricted experimentation; or implying regulatory development.[289]

"Doing nothing" arises when the Fintech environment is not regulated. Depending on the region and its banking regulations, the result may be permissive or restrictive. China is recognised as one of the successful examples of the permissive approach which applied until 2015.[290] At that time, scholars and Chinese financial officials decided that the approach was inadequate for the proper regulation of the innovative market. Then, due to the increasing development of digital financial services, for example, raising the Alibaba Group (currently the world's largest e-commerce company) with a new pool of products such as Alipay, Alifinance, Ali Wallet, and even the Internet bank, Mybank, offering loans up to RMB 5 million to SMEs, the regulators decided to incorporate a comprehensive regulatory approach 'to specify the bottom line, strengthen the oversight of the business and guide the industry, which is motivated by innovation, to develop in a healthy and sustainable way'.[291] However, applying the "doing nothing" approach does not mean that the new sector will not be regulated at all. New Fintech start-ups may need to comply with the current state's traditional financial regulation which

[286] As in case of Hong Kong (HKMA), Singapore (MAS), or AFM/DNB (Authority for the Financial Sector / DeNederlandscheBank), 'More Room for Innovation in the Financial Sector' (2016) <https://www.dnb.nl/media/xqhnsc2k/more-room-for-innovation-in-the-financial-sector.pdf> accessed 1 March 2020.
[287] FINMA, 'FinTech Licence and Sandbox: Adjustments to FINMA Circulars' (March 2019) <https://www.finma.ch/en/news/2019/03/20190315-mm-fintech/> accessed 10 January 2020.
[288] Buckley and others (n 277) 9.
[289] Zetzsche and others (n 281) 15–18.
[290] Weihuan Zhou, Douglas W Arner and Ross P Buckley, 'Regulation of Digital Financial Services in China: Last Mover or First Mover?' [2015] University of Hong Kong Faculty of Law Research Paper No. 2015/044 <http://www.ssrn.com/abstract=2660050> accessed 9 May 2021.
[291] Financial Stability Analysis Group of the People's Bank of China, 'China Financial Stability Report' (2014) 178–179 <http://www.centerforfinancialstability.org/fsr/chn_fsr_201407.pdf> accessed 11 January 2020.

may impact their results. This approach may protect against risk, but on the other hand, it will suppress the development of innovations.

In its report, the Financial Stability Board stated that 'while many FinTech activities are covered within existing regulatory frameworks, the FSB stocktake of regulatory approaches to FinTech finds that a majority of jurisdictions (20 of 26) have already taken or plan to take regulatory measures to respond to FinTech'.[292]

The second approach relates to the incorporation of the form of flexibility on a case-by-case basis based on forbearance. Financial authorities and regulators are mandated to accept new financial innovations and their development while maintaining proper financial stability and consumer protection. Hence, the authority may apply for exemptions in different forms, such as no-action letters, restricted licences, partial or full exemptions, or dispensation for innovative firms. The benefit of this approach is that regulators retain access to acquire knowledge of start-ups, collect data, and understand the business model better. It helps them to analyse the market and, if necessary, adjust their approach on a case-by-case basis. There is however a flip-side to this approach and the risk associated with it. As the Fintech ecosystem grows rapidly, the number of requests from industry increases. This generates additional cost as each decision must be evaluated on a case-by-case basis. Further, there is also risk associated with them as the errors in the assessment may cause distortion of competition, be harmful to the clients within the system, or even damage regulators' reputation. Other downsides may be the risk of liability for decisions taken by regulators.[293]

The third approach is based on adopting experimentation as seen in the Regulatory Sandbox or structured piloting exercises. As outlined earlier, regulatory sandboxes are currently incorporated in many countries and are a source of benefit for firms and regulators. Regulatory "safe space" requires the firm to incorporate appropriate safeguards to separate the market from the risks. For example, in the form of mandatory entry or exit sandbox requirements.

The final approach – and the most formal – is based on redesigning current regulations or developing new ones which will help improve the framework for new activities.

Summarising the above points: the regulatory sandbox can have either positive or negative benefits for the market and its customers. On the positive side, the authority learns from the innovative firms

[292] Financial Stability Board, 'Financial Stability Implications from FinTech: Supervisory and Regulatory Issues That Merit Authorities' Attention' (2017) 4 <https://www.fsb.org/wp-content/uploads/R270617.pdf> accessed 21 June 2021.
[293] Zetzsche and others (n 281) 16–26.

as they freely discuss their issues and concerns without the fear of penalty. This also shows that the innovative firms are supported, hence regulatory sandboxes help to achieve a balanced level of interest for innovation and increase consumer protection. On the negative side, it is worth noting that playgrounds are not fully regulated; hence the risks may increase in the market. Moreover, consumers may start avoiding use of innovative products which may slow the innovative environment.

As noted above, regulators have started to introduce and offer many options for supporting innovation. The regulatory sandbox is not simply a one-off idea proposed by the FCA to support innovation. It came up with the proposition to set up the sandbox umbrella, which is the licensed development platform. The new form can be run by a non-profit company supervised and authorised by the regulator. Hence, the new unauthorised innovative firm could operate under this umbrella. Also, it will be opened to both regulated and unregulated entities.[294] There are many opportunities associated with a new entrants; for example, they can use an umbrella licence or an entire IT due-diligence system. Additionally, the Financial Services Compensation Scheme and Financial Ombudsman Service protection apply if the entity's activity fall within their scope. On the other hand, there are challenges regarding regulatory complexity, liability, and ongoing governance.[295]

Together with the regulatory sandbox approach, many regulators recognise and establish an "Innovation Hub" as another vehicle to support the innovative environment. Compared to sandboxes, the Innovation Hub is the place where potential Fintech firms can easily access regulators to discuss their business plan and new innovations, receive guidance regarding the regulatory requirements, and look for adjustments to the current regime.[296] In the UK, this form is covered by the Innovation Pathways support discussed earlier. The place where businesses can have a one-on-one discussion with the FCA subject expert regarding the questions around the business model, regulation, and authorisation issues. The FCA also offers the Informal Steers, which provides regulatory feedback on the implications of innovative proposals and clarification regarding rules that may apply if the business model does not fit into the existing category.[297] However, as the name suggests, this is informal guidance and the FCA does not accept responsibility or liability for the opinion expressed.

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[294] ibid 45.
[295] FCA, 'Regulatory Sandbox' (n 266) 13.
[296] Innovation Hubs have been referred to as a place that 'provide[s] a dedicated point of contact for firms to raise enquiries with competent authorities on FinTech-related issues and to seek non-binding guidance on regulatory and supervisory expectations, including licencing requirements' as per European Supervisory Authority, 'FinTech: Regulatory Sandboxes and Innovation Hubs' (2018) <https://www.esma.europa.eu/sites/default/files/library/jc_2018_74_joint_report_on_regulatory_sandboxes_and_innovation_hubs.pdf> accessed 20 January 2020.
[297] FCA, 'Disclaimer: Giving an Informal Steer' <https://www.fca.org.uk/publication/corporate/project-innovate-disclaimer-2.pdf> accessed 20 February 2021.

Comparing these two approaches, one may ask which offers the better way to support innovation or even help regulate the market and learn through example. One point that must be noted is that regulators need to rethink all aspects regarding the promotion of innovation and the resources available.

3.8 New does not mean new – the lesson from history.

As new technology is released there is a need to assess how, when, and whether laws and regulations should be adopted. Innovations are not new; however, every kind of technological innovation can have a different impact on the regulatory environment and on every branch of law.[298] It is worth noting that slow changes in law can have a negative impact on the economy and society and create risks and concerns in different areas, including human health and privacy. But on the other hand, too many changes in the legal context can also have negative consequences. Emerging technology raises questions about the legitimacy of law and its impact on social life, moral values, and privacy. This is linked to the interplay between legal uncertainty and technological development.

Mande[299] has advised a return to the past and an examination of legal evolution in the context of technology. However, he flagged that the history lessons may be recognised only partially as a road map for new legal and technological issues given the variety of technological changes. He highlighted three points on how to confront new laws and technological challenges. First, the scope of pre-existing legal categories might not be relevant to disputes arising in law and technology. Second, decision makers should be vigilant and make reasonable judgements about new technology. Third, emerging technology introduces a new type of dispute – generally unforeseeable – to the legal system.

These three points are a good point of departure for a discussion of legal challenges and technological development. In Mandel's view, the first lesson expresses that legal decision makers need to be careful while taking and categorising cases into the legal system. They should consider legal categories carefully as the new technology may not fit readily into the existing legal context. An example can be clearly seen in *Parks v Alta California Telegraph Co* (1859)[300] and *Breese v US Telegraph Co* (1871).[301] At that time the telegraph was the first long-distance form of communication. It was also recognised as a new technology and it inevitably gave rise to novel legal disputes.

[298] Moses, 'Why Have a Theory of Law and Technological Change?' (n 249) 594.
[299] Gregory N Mandel, 'History Lessons for a General Theory of Law and Technology' (2007) 8 Minnesota Journal of Law, Science and Technology <https://scholarship.law.umn.edu/cgi/viewcontent.cgi?article=1264&context=mjlst> accessed 23 February 2017.
[300] *Parks v Alta California Telegraph Co* (1859) 13 Cal 422.
[301] *Breese v US Telegraph Co* (1871) 48 NY 132.

Additionally, legal uncertainty arises in the area of legal responsibility in case of damage resulting from company error. In the *Parks* case the Alta California Telegraph Company failed to send telegraph messages timeously which resulted in financial losses for Parks. The court held that, in law, the telegraph company could be classified as "a common carrier". The firm was recognised as a transportation company and common carrier, and as a result, needed to take responsibility for goods it had agreed to deliver.

A similar but not identical legal dispute emerged sometime later in *Breese v US Telegraph Co*. Breese requested to send a telegraph to a broker with annotation to buy $700 worth of gold. The message was delivered but reflecting an incorrect value. The price of gold subsequently dropped and Breese sued the company for his losses. This case appears similar to the *Parks* case despite the fact that the US Telegraph Company added a small annotation that in the case of an important message, the sender should request an additional charge to have the message returned to him so as to ensure that there were no errors in transmissions. As a result, if the message was not a resending one, the company was not liable for any losses. In the court's view the company was not recognised as a "common carrier" but was governed by the contract. The judge found that the telegraph message was recognised as a new type of message delivery distinct from that for letters.

These two cases are similar but the courts reached different conclusions based on a different categorisation of "common carrier" and their association with liability. In the *Parker* case, the telegraph was classified as a letter which therefore required the company to ensure the service offered. An opposite result was achieved in the *Breese* case where the telegraph was not classified as a letter but as a new technology.

Based on these two cases, Mandel considered whether a new technology is similar and can be classified within the prior system of categorisation or whether new rules should govern it. However, it is worth noting that this cannot be resolved by comparing the function of new technology and that of it forerunners. The decision makers should consider the rationale for an existing legal category and apply it if it is relevant to the new technology. The legal category is open-ended and can deal with new developments; however, this needs to be done on a case-by-case basis.[302] It is worth noting that even if private law provides a clear answer, there may still be a need for regulation due to market failure.

[302] Gregory N Mandel, *Legal Evolution in Response to Technological Change*, vol 1 (Roger Brownsword, Eloise Scotford and Karen Yeung eds, Oxford University Press 2016) <https://academic.oup.com/edited-volume/27999/chapter/211734481> accessed 9 May 2022.

The second point applies to the legal decision makers who should monitor new technologies with a focus on reasonable judgement when making decisions. In some ways this point is an extension of the first lesson. An example is when decision makers are blinded by technological development and prioritise new achievements over underlying legal concerns. The case of *People v Jennings*[303] (1911) illustrates this well. For the first time in American history, fingerprint identification was used as evidence to establish the identity of a murderer. However, the main point here is that the evidence did not meet the reliability requirements. The evidence was not clear, and the judge relied only on the examination provided by four fingerprint experts and their qualifications rather than focusing on the reliability of fingerprint identification as such. It can be assumed that the judge reached his decision on the basis of his impression regarding the new scientific tool for the identification of people. This example illustrates very clearly that legal decision makers should be aware of new technology but look behind it to avoid a lack of objectivity.[304]

Mandel's final lesson for law and technology is that legal disputes may be unforeseeable. Technological advances bring uncertainty in the legal environment, and decision makers need to be aware of limitations that arise in legal disputes. At the early stage when new technology presents, judges are faced with a dilemma when called upon to use pre-existing legal categorisation as this may not always fit comfortably into the area of law to be decided due to a lack of information and knowledge about the "new situation".

The purpose of the preceding discussion is to determine the impact of new technology on the legal environment. The study has, however, shown that three of Mandel's lessons may not apply to every legal dispute and depend on individual interpretation.

3.9 Conclusion

In recent years, technology and innovation have significantly impacted the financial and regulatory environment. The key focus emerged around Financial Technology (Fintech), which enables finance in a more convincing way through new applications of technologies. The impact is already visible in many sectors, such as banking, insurance, and investment advice. One notable innovation in finance is the automated advice service, which is also the key focus of the research, and in which AI is used to offer efficient advisory services to a large number of individuals through online robo-advisors. As innovation increasingly influences the financial markets, regulatory aspects have become crucial in

[303] *People v Jennings* (1911) 252 Ill 534.
[304] Mandel (n 302) 3.

ensuring a stable, efficient, and healthy financial environment. The goal of regulation in an innovative context is to maximise the benefits of innovations while minimising adverse effects. This complex task requires careful consideration of economic and social preferences. From a regulatory perspective, the concept of technology-neutral regulation is gaining recognition, covering both traditional and digital advisors. Technology-neutral elements offer flexibility and time for policymakers better to understand innovations before introducing specific regulations. At this stage, the question may arise of whether specific regulation is really needed. However, this approach also has limitations as it may struggle to adapt to a rapidly changing environment. As was seen earlier in this chapter, the principle of technological neutrality is widely recognised in the digital world and emphasises regulating behaviour rather than specific technologies. There are four rationales for the principle of technology neutrality: non-discrimination; sustainability; efficiency; and consumer certainty. They focus on maintaining fair competition in the market by adopting regulations that evolve together with technology and adaptability to the current market situation. There are many benefits as well as challenges in deciding on the appropriate regulatory approach for new technology which remains a complex task.

The evolving regulatory landscape also affects firms' organisational structures and requires them to adapt to new frameworks. In the time of regulatory uncertainty, business models can be impacted. To encourage firms to invest in new products and promote growth, there is a need to create an innovation-friendly regulation and find the correct balance between innovation and its risks.

Governments worldwide have prioritised the inclusion of new products within the regulatory framework. In the UK, the FCA has implemented initiatives to support innovative firms. One of these is Project Innovate, which includes Regulatory Sandbox, where firms can test their products with real customers under close supervision. Apart from that, the Advice Unit was created to support firms and provide regulatory feedback in the area of robo-advisors. Indeed, creating a new regulatory approach for automated advice services or for new technological applications in general, is no easy task. The following chapter will focus on the AI application widely used in automated advice services. The information collected in that chapter will help in understanding the phenomena of digital financial services before the impact of online robo-advice is analysed.

4 Chapter IV: Artificial Intelligence (AI) in the Robo-Advisory World

4.1 Introduction

Artificial Intelligence (AI) is the new technological adventure of our time and has changed and shaped our world over the last few years. It is still developing and will continue to impact on our lives for years to come. It has started to have a big impact on the financial industry as more and more companies apply the new AI development to financial products. The aim of this chapter is to focus on a general understanding of AI, its regulatory implications, and its impact on automated advice services.

Robo-advisors are automated platforms that use algorithms and AI techniques to provide investment advice and portfolio management for clients. AI plays an important role here as it helps deliver results more efficiently than traditional advisors and at far lower cost. A few reasons which illustrate the importance of AI in the sphere of robo-advice can be highlighted here. The principal importance is personalisation, which allows the creation of highly personalised investment recommendations taking many aspects into consideration, such as financial goals, risk tolerance, or financial situation. This enhances the client's experience by providing more tailor-made advice. Further, thanks to the AI system, large datasets can be analysed in real time. It makes the decision-making process faster and more accurate than humans. AI is also able to assess and manage risk more efficiently by monitoring the situation in the market and adjusting asset allocation to mitigate risk. Automation of most tasks is another key element when using AI. Further, it helps to deliver 24/7 service to the customers and increases security by detecting and responding to cyber threats and fraud. All the above reasons relevant when evaluating the robo-advice service and are discussed further in what follows.

4.2 General overview of AI

4.2.1 Definition of AI

AI has already penetrated the social consciousness but has to date not been fully defined. In simple terms, AI is 'the ability of a machine to perform cognitive functions we associate with human minds, such as perceiving, reasoning, learning, interacting with the environment, problem-solving, and even exercising creativity'.[305] Many terminologies cannot describe what AI is in that, due to its complexity,

[305] McKinsey, 'An Executive's Guide to AI' (*Quantum Black by McKinsey*) <https://www.mckinsey.com/capabilities/quantumblack/our-insights/an-executives-guide-to-ai> accessed 17 May 2022.

it is challenging to define.[306] Providing clarity on AI will help us better understand its challenges and risks and may lead to a more standardised approach across the industry.

The International Organisation for Standardisation (IOS) defines AI as:

> 'an interdisciplinary field, usually regarded as a branch of computer science, dealing with models and systems for the performance of functions generally associated with human intelligence, such as reasoning and learning'.[307]

The EU treats AI as:

> 'software that is developed with one or more of the techniques and approaches […] and can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with'.[308]

The High-Level Expert Group, in its report on AI, proposes an updated definition stating that:

> 'Artificial intelligence systems are software (and possibly also hardware) systems designed by humans that, given a complex goal, act in the physical or digital dimension by perceiving their environment through data acquisition, interpreting the collected structured or unstructured data, reasoning on the knowledge, or processing the information, derived from this data and deciding the best action(s) to take to achieve the given goal'.[309]

The definition of AI can also be found in the National Security and Investment Act. This is a revised version adopted after consultation and provides:

> 'AI – means technology enabling the programming or training of a device or software to - (i) perceive environments through the use of data; (ii) interpret data using automated processing designed to approximate cognitive abilities; (iii) make recommendations, predictions or decisions; with a view to achieving a specific objective'.[310]

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[306] John McCarthy, 'What Is Artificial Intelligence?' <http://jmc.stanford.edu/articles/whatisai.html> accessed 22 April 2022.
[307] ISO OBP, 'ISO/IEC 2382:2015(En) Information Technology — Vocabulary' <https://www.iso.org/obp/ui/en/#iso:std:iso-iec:2382:ed-1:v2:en> accessed 20 April 2022.
[308] European Commission, 'Proposal for a Regulation Laying down Harmonised Rules on Artificial Intelligence - Document 52021PC0206' (n 181) s Art. 3(1),.
[309] European Commission, 'High Level Expert Group on Artificial Intelligence, Ethics Guidelines for Trustworthy AI' <https://data.europa.eu/doi/10.2759/346720> accessed 17 April 2022.
[310] Department for Business, Energy and Industrial Strategy, National Security and Investment, 'Sectors in Scope of the Mandatory Regime' (2021) 22 <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/965784/nsi-scope-of-mandatory-regime-gov-response.pdf> accessed 17 April 2022.

The definition of AI is not uniform and the scope of its application needs to be recognised individually for every system in which it is used. The term "AI" itself varies depending on the system in which it is used, such as self-driving cars, medical diagnoses, and others. The risk profile of each system will differ and needs to be approached differently. As the term evolves, policymakers have difficulties defining AI in legal terms – a problem[311] that is yet to be resolved. Schuett focuses on the material scope of AI regulation and ventures a few recommendations. One of these is not to focus on defining AI as no single definition meets all the requirements for legal definitions. Instead, a risk-based approach and additional elements like designs, usage, and capabilities should first be considered. All elements should be examined together rather than in isolation.[312]

Another aspect closely linked to AI is machine learning – a fundamental technology which underlies many modern AI applications. Machine learning technology and its algorithms are becoming integral parts of business processes across industries. Machine learning, in general, is the subset of AI that focuses on using data and algorithms that facilitate computers to make predictions or decisions without being programmed. It has grown rapidly in recent years and is the most popular technology in the fourth industrial revolution. The algorithms involved can be categorised as different types: supervised; unsupervised; semi-supervised; and reinforcement learning.[313]

Machine learning takes many forms from automation of repetitive tasks, cost saving, improved accuracy, and customer service to provide personalised recommendations and identify new product opportunities. On the other hand, machine learning also creates uncertainty. By their nature, the algorithms are highly complex and greater transparency around their design is required. Also, incorrect interpretation of output may lead to errors, bias, and fraudulent acts. Zhang, Chan, Yan, and Bose offer more in-depth risk categorisation. They group risks in two categories: data-level risk and model-level risk. Each risk type is further divided into more granular types of risk. For example, model-level risk includes model bias, model misspecification, and model uncertainty, whereas data-level risk contains data bias, dataset shift, out-of-domain data, and adversarial attack.[314]

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[311] Gary Lea, 'Why We Need a Legal Definition of Artificial Intelligence' (2015) <http://theconversation.com/why-we-need-a-legal-definition-of-artificial-intelligence-46796> accessed 1 June 2022; Matthew U Scherer, 'Regulating Artificial Intelligence Systems: Risks, Challenges, Competencies, and Strategies' (2016) 29 Harvard Journal of Law & Technology <http://www.ssrn.com/abstract=2609777> accessed 1 June 2022; Mihalis Kritikos, 'Artificial Intelligence Ante Portas: Legal & Ethical Reflections', [2019] European Parliamentary Research Service <https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2019)634427> accessed 1 June 2022.

[312] Jonas Schuett, 'Defining the Scope of AI Regulations' (2019) 15 Law, Innovation and Technology <https://www.tandfonline.com/doi/full/10.1080/17579961.2023.2184135> accessed 1 June 2022.

[313] More information about types of machine-learning algorithms can be found here: Iqbal H Sarker, 'Machine Learning: Algorithms, Real-World Applications and Research Directions' (2021) 2 SN Computer Science 160.

[314] Further information about presented risk categorisation can be found here: Xiaoge Zhang and others, 'Towards Risk-Aware Artificial Intelligence and Machine Learning Systems: An Overview' (2022) 159 Decision Support Systems 113800.

Further, the outcome may be established from what was envisaged by the original algorithm, as algorithms which run in the background often function as "black boxes". They are almost impossible to understand, especially why a specific decision was deduced from the data and how a conclusion was reached. There is also a need for more standards and regulations to govern complex machine-learning techniques, starting from the collection of data, processing it, training, and design.[315]

4.2.2 History and challenges of AI

Artificial intelligence is a powerful technology used in the current financial sector. Nowadays it attracts global attention. It is used daily, from navigation applications and spam filtering, to payment transactions. But AI is not a new concept.

The history of AI and interest in the concept extend back to the 1950s when computer scientist Alan Turning noted that machines were capable of thinking.[316] His "Turning test" is used today to determine the machine's ability to think like a human. Since the mid-1950s the term "artificial intelligence" has gained in popularity.[317] In 1955 a group of researchers presented a proposal for a research project in which they undertook to investigate AI.[318] Soon after, the first AI laboratory was set up at the Massachusetts Institute of Technology ("MIT") together with the first artificial neural network model by Rosenblatt.[319] Over the 1970s and 1980s, many types of research were undertaken as highlighted by Puppe[320] In the main this addressed "expert systems" or 'programs for reconstructing the expertise and reasoning capabilities of qualified specialists within limited domains'.[321]

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[315] Deloitte, 'Managing Algorithmic Risks. Safeguarding the Use of Complex Algorithms and Machine Learning.' <https://www2.deloitte.com/us/en/pages/risk/articles/algorithmic-machine-learning-risk-management.html> accessed 2 October 2023.
[316] Alan Turing, 'Can Digital Computers Think? (1951)' in BJ Copeland (ed), *The Essential Turing* (Oxford University Press Oxford 2004) <https://academic.oup.com/book/42030/chapter/355746736> accessed 12 June 2024.
[317] Or Shani, 'From Science Fiction to Reality: The Evolution of Artificial Intelligence' (2015) <https://www.wired.com/insights/2015/01/the-evolution-of-artificial-intelligence/> accessed 17 April 2022.
[318] 'We propose that a 2 month, 10 man study of artificial intelligence be carried out during the summer of 1956 […] The study is to proceed on the basis of the conjecture that every aspect of learning or any other feature of intelligence can in principle be so precisely described that a machine can be made to stimulate it'. – J McCarthy and others, 'A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence' <http://jmc.stanford.edu/articles/dartmouth/dartmouth.pdf> accessed 20 April 2022.
[319] John Lightbourne, 'Algorithms & Fiduciaries: Existing and Proposed Regulatory Approaches to Artificially Intelligent Financial Planners' 67 Duke Law Journal <https://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=3920&context=dlj> accessed 17 April 2022.
[320] Frank Puppe, *Systematic Introduction to Expert Systems: Knowledge Representations and Problem-Solving Methods* (Springer Berlin Heidelberg 1993).
[321] ibid 3.

Despite the long history of its development, recent digitalisation and technological advances have raised AI to the next level of interest. In 2018, a report by the World Economic Forum ("WEF") highlighted a new future in finance when it stated that AI would deliver "new efficiency" and "new kinds of value".[322] AI is shown as a new form of superpower in which shifting competencies and altering the attributes will help to build a successful business in financial services. The term "new efficiency" refers to the transformation of the financial ecosystem. Here, the WEF noted that AI may help automate back-office operations and turn them into external services. In this way, the institution can change its cost centres into profit centres. Operating models will also change with the focus falling on the scale and sophistication of data. There is also an element of self-driving finance where a new version of finance could transform the delivery of financial advice. Customers will interact with the self-driving AI advisor and receive bespoke and personalised advice. This improves the customer experience of the price and product offered. In such a situation, conduct risks will be transformed and reduced as the shift will move to self-driving agents. However, if misconduct does occur, it will be on a far bigger scale as will involve the connectivity of AI. Hence, the focus will be on the accountability for algorithms driving decision making, including its correctness. There are also social and economic risks in AI that will require collaboration across multiple stakeholders. Keeping the financial system safe is the key aspect, but it is worth bearing in mind that AI may increase interconnectedness across domestic and cross-border systems.

The second term – "new kinds of value" – highlighted by the WEF refers to creating a more innovative business model through which innovative products and services will improve customer experience and help unlock untapped segments of the business.[323]

This rapid adoption of AI and constant improvements at an increasingly alarming rate may create a situation where the legal regime could struggle to keep up as we have now. The new form of digital advisor, also termed "robo-advisor services", which are based on AI algorithms, has become increasingly sophisticated with closer public attention. Firms have incorporated AI into their systems, covering various activities and benefiting the economy, firms, and households.[324] Firms use AI to create entirely new systems or upgrade their existing models to improve efficiency. Overall, most companies do not replace the traditional model but only enrich it with a new analytical technique. Hence, there are many cases where humans are still involved in the process (humans in the loop), or

[322] World Economic Forum, 'The New Physics of Financial Services. Understanding How Artificial Intelligence Is Transforming the Financial Ecosystem' (2018) <https://www.weforum.org/reports/the-new-physics-of-financial-services-how-artificial-intelligence-is-transforming-the-financial-ecosystem> accessed 1 April 2022.
[323] ibid.
[324] Tom CW Lin, 'Artificial Intelligence, Finance, and the Law' (2019) 88 Fordham Law Review <https://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=5630&context=flr> accessed 14 April 2022.

share part of the process (humans on the loop).[325] This is termed the "automation" process, where the whole or part of the code will be replaced by AI with limited involvement of humans.

Most AI systems are used in investment and savings management, primarily by creating institutional fund products. Risks may manifest when the AI system across different companies starts to use the same or similar data for its calculations resulting in quick changes in market volatility and posing a risk to the consumer's investment, firm, and the entire financial system. To minimise risk, the firm needs to understand the technology and the consequences of advanced technology. Further, regulators need to keep an eye on new challenges and create a sound framework for incorporating AI in financial services.

On the other hand, innovations amplify new risks and challenges for firms. This is a result of the automation taking place and relates to the complexity of new technology, such as, in this case, the AI models. Innovations bring new opportunities but also many unknowns that can cause a problem which is not initially visible. In the process of robo-advice, the algorithms are the key and they are only sound if the infrastructure and design process are appropriate.

Unfortunately, this is not always the case. Due to constant changes in technology, data used in the modelling process poses a risk of lack of transparency or difficulties in understanding the outputs. This is termed a "black box problem". It occurs when the decision-making process cannot be explained which challenges the transparency requirements. In the main, it applies to AI-based applications that operate in real time and constantly reproduce their outcomes based on the new input. In many cases understanding or justifying output is not possible.[326] The problem of lack of transparency is even more evident in the machine-learning community.[327] However, it has been noted that there are various approaches where the black box problem can be resolved[328] – although, at this point it may not work across all sectors. Currently, it is virtually impossible for humans – even with the aid of technology – to find all bugs in programming code. This means that technologies based on AI systems will be vulnerable to certain forms of cyber-attack.[329] These vulnerabilities can, however, be minimised by using an open-source approach and allowing people freely to explore the code used.

[325] Ross P Buckley and others, 'Regulating Artificial Intelligence in Finance: Putting the Human in the Loop' (2021) 43 Sydney Law Journal <https://ssrn.com/abstract=3831758> accessed 14 April 2022.
[326] Thilo Hagendorff and Katharina Wezel, '15 Challenges for AI: Or What AI (Currently) Can't Do' (2020) 35 AI & Society 355.
[327] Jenna Burrell, 'How the Machine "Thinks": Understanding Opacity in Machine Learning Algorithms' (2016) 3 Big Data & Society 205395171562251.
[328] Brent Mittelstadt, Chris Russell and Sandra Wachter, 'Explaining Explanations in AI', *Proceedings of the Conference on Fairness, Accountability, and Transparency* (ACM 2019) <https://dl.acm.org/doi/10.1145/3287560.3287574> accessed 13 June 2023.
[329] Hagendorff and Wezel (n 326) 362.

This could promote transparency and innovation, prevent monopolisation, and lower barriers to development. On the other hand, fears have been raised regrading misuse of the code or dissemination of misleading content. Safety implications play an important part here, as these models may cause harm if used by inappropriate people.[330]

A subject which is closely related to the above transparency risks is the liability challenge. As AI tools and models may cause harm, there must be responsibilities assigned across the supply chain to mitigate risk. In such a complex application, it is challenging to determine liability for unsafe or harmful uses. Policy makers need to decide whether developers and providers bear the liability for harm done. In the Government Interim Report, developers expressed their support for "distributed liability". This means that liability should be spread across the supply chain 'based on which aspect is most likely to lead to harm and an actor's practical ability to comply given the structure of the market and the nature of their contribution'.[331]

Another challenge emerging from the AI model perspective is bias. Researchers and developers rely on data to test and operate AI models. As the dataset is created by humans, there is an inherent risk that it will contain bias. If data is not adequately checked, it will follow the society's biases against minorities and could lead to discrimination and demographic exclusions.[332]

If the data contains biases and shortcomings it affects the quality of the advice or output. The latest example from the UK shows that UK officials used AI tools to decide on issues from benefits to marriage licence approval.[333] Decisions that AI made in the public sector were not free of bias and raised concerns regarding accountability and discrimination. Another example of bias is highlighted by Motoki, Neto and Rodrigues. The focus of their research is political bias in ChatGPT – another AI application.[334] Recently, the UK government launched an innovation challenge for UK businesses and offered funding to tackle bias in AI systems.[335] Fairness in AI systems is recognised as one of the key principles of AI. The new scheme funds innovative solutions to tackle bias and discrimination in the

[330] House of Commons. Science, Innovation and Technology Committee, 'The Governance of Artificial Intelligence: Interim Report' Ninth Report of Session HC 1769 <https://committees.parliament.uk/publications/41130/documents/205611/default/> accessed 10 October 2023.
[331] ibid 22.
[332] ibid 15.
[333] The Guardian, 'UK Risks Scandal over "Bias" in AI Tools in Use across Public Sector' <https://www.theguardian.com/technology/2023/oct/23/uk-risks-scandal-over-bias-in-ai-tools-in-use-across-public-sector> accessed 10 October 2023.
[334] Fabio Motoki, Valdemar Pinho Neto and Victor Rodrigues, 'More Human than Human: Measuring ChatGPT Political Bias' [2023] Public Choice <https://link.springer.com/10.1007/s11127-023-01097-2> accessed 13 June 2023.
[335] UK Government Press Release, 'New Innovation Challenge Launched to Tackle Bias in AI Systems' <https://www.gov.uk/government/news/new-innovation-challenge-launched-to-tackle-bias-in-ai-systems> accessed 10 October 2023.

AI systems. There is a clear risk of encoding bias in the AI models, and when undetected it may have an impact on results and create discrimination in areas affecting peoples' lives.

There is also concern around the high possibility of job losses and "the singularity" which has triggered considerable debate around the ethics[336] and legal aspects of AI. With the increasing automation of processes there is a real possibility of the displacement of workers by technology; on the other hand, however, it may also open the door to new opportunities.[337] In the study by Duckworth, Graham and Osborne, they conclude that while more repetitive clerical jobs may be automated faster, other jobs which require a more creative and dynamic mindset will see far slower automation.[338] Looking at the possibility of job losses, it is worth noting that changes could vary depending on the individual's position, age, or education. The blue-collar and less educated people with basic skills may experience a greater impact while young individuals with up-to-date skills and higher education could not be affected to any great extent.[339]

Trust and fairness in AI also deserve consideration. AI was created to improve and change our daily lives in many areas, such as finance, transportation, and health care. To realise this aim, AI needs to be introduced in ways which respect human and civil rights and build trust and understanding.[340] There is consensus across the research community that this can be achieved only by combining fairness, accountability, transparency, and regulation. The challenge is how to achieve this and the extent to which AI should be controlled – should we keep humans in the loop or leave AI to operate with full autonomy?

Additionally, inadequate use of AI – ie, poorly implemented or managed AI systems – may result in errors and security breaches that may have financial implications. Moreover, if AI systems are not compliant with relevant regulations, organisations can face fines and regulatory consequences. There is also a risk of loss of intellectual property if data is not adequately protected. This can also damage a firm's reputation.

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[336] Dirk Helbing, 'Societal, Economic, Ethical and Legal Challenges of the Digital Revolution: From Big Data to Deep Learning, Artificial Intelligence, and Manipulative Technologies' in Dirk Helbing (ed), *Towards Digital Enlightenment* (Springer International Publishing 2019) 47 <http://link.springer.com/10.1007/978-3-319-90869-4_6> accessed 13 June 2023.

[337] House of Commons. Science, Innovation and Technology Committee (n 330) 24.

[338] Paul Duckworth, Logan Graham and Michael Osborne, 'Inferring Work Task Automatability from AI Expert Evidence', *Proceedings of the 2019 AAAI/ACM Conference on AI, Ethics, and Society* (ACM 2019) <https://dl.acm.org/doi/10.1145/3306618.3314247> accessed 13 June 2023.

[339] European Parliament, 'The Ethics of Artificial Intelligence: Issues and Initiatives.' (Publications Office 2020) PE 634.452 <https://data.europa.eu/doi/10.2861/6644> accessed 13 June 2023.

[340] Virginia Dignum, 'Ethics in Artificial Intelligence: Introduction to the Special Issue' (2018) 20 Ethics and Information Technology 1.

The Artificial Intelligence/Machine Learning Risk and Security Working Group ("AIRS") gave an extensive breakdown of AI-related risks categorising them into four main groups: Data-related risks; AI/ML attacks; testing; and trust and compliance.[341] Each of these main categories is further broken down into sub-categories.

The White Report classified data-related risks as its primary category, focusing on the risks linked to data used in AI systems. This category can be further divided into two sub-categories: learning limitations, and data quality. The first of these often relates to a lack of judgement and contextual understanding required for the diverse settings in which AI systems are used. The efficacy of an AI system is based on the quality of the trained data across various scenarios. In many cases, it is impractical or virtually impossible to train AI systems in every possible scenario and dataset. The absence of context, judgement, and learning limitations may significantly influence risk assessment. The second presents the concern regarding inadequate data quality, which is not unique to AI. It could not only limit learning capabilities but also potentially have adverse effects on future decision making. Poor data quality covers factors such as incomplete, erroneous, unsuitable, or outdated data, or data used in an inappropriate context.

The second main category involves AI/ML attacks and examines the potential security weaknesses within AI systems. The attacks can be categorised into three areas: data privacy, data poisoning, and model extractions.

Data privacy attacks involve the potential for an attacker to deduce the data set used for training the model, thus compromising data privacy. This could lead to the extraction of sensitive information from the training dataset. There is a possibility of training data poisoning, which refers to contaminating the data used in AI system training. This attack could lead to adverse effects on the learning process and output. Model extraction attacks are the last form in the sub-category and relate to an attempt to steal the AI model itself. Such an attack could be impactful as the stolen model could be used to create even greater risks.

The third category applies to testing and trust, where sub-categories like incorrect output, lack of transparency, and bias present challenges in AI systems. As the AI system is constantly evolving it is prone to changes in its output. Testing is challenging as it is not always feasible to cover all possible data combinations and scenarios. In addition, there is a risk of a lack of comprehensive understanding, mentioned earlier as the "black box" problem. This will create trust issues as AI decisions will at some point not be able to be explained. Moreover, the bias problem highlighted above was also

[341] Full hierarchy of AI risks, including categories in the Artificial Intelligence/Machine Learning Risk & Security Working Group (AIRS), 'Artificial Intelligence Risk & Governance' <https://ai.wharton.upenn.edu/white-paper/artificial-intelligence-risk-governance/> accessed 14 June 2022.

mentioned here. Depending on the specific case, an AI system could produce biased outcomes for individuals or organisations, impacting on privacy, compliance, regulations, and reputation.

The final category highlighted in the Report relates to compliance. With the increasing development of AI, it is essential to consider its impact on existing internal policies. Across the globe, regulatory bodies, mainly in the financial industry, have established collaborative working groups to address the supervisory complexity of emerging technology.

The risks presented may have an impact on society, consumers, and organisations. In whole or in part, they can emerge as part of the AI system itself, from data that was used to train, or from the usage of an AI system. It can also arise from poor governance applied to an AI system. It is worth adding that all the risks identified depend on an individual organisation and how it structures its risk profile and existing controls.[342]

Further, on the same topic, the Alan Turning Institute Report[343] highlights general challenges and guiding principles for the responsible adoption of AI within the financial system and society at large. The main aim is to ensure that new AI systems demonstrate trust and are used responsibly. In the business sphere, AI may take the form of automated decision making which reduces or even removes the involvement of humans from the process. The example can already be seen in credit eligibility checks or stock-trading decisions. Next is automated information management, where data is constantly updated based on the information provided, or an automated information verification system where customer information can be checked during the application process.

The report also highlights a specific concern that arises around AI. First, is the system performance which is the critical aspect of the trustworthiness of AI. It applies to both pre- and post-development stages. As AI evolves, the quality of data at the beginning and the end of the process can be different, driven by difficulties in assessing system performance. Second, firms need to ensure that their AI systems comply with all relevant domestic legislation and regulatory requirements. In the case of financial services in the UK, there are the FCA Handbook, the PRA Rulebook, the Equality Act, the Competition Law, and the Data Protection Law.

[342] ibid 2.1.1.-2.1.4.
[343] Ostmann, Florian; Dorobantu, Cosmina, 'AI in Financial Services' (Zenodo 2021) 33–45 <https://zenodo.org/record/4916041> accessed 13 June 2023.

The concern appears to centre on the violation of compliance rules, such as discrimination based on the data used in the AI model. Third, it applies to the explanation process, where the AI system makes decisions. The area of concern applies to the complexity of the outputs and difficulties in understanding and explaining the logic hidden behind AI. A similar problem may arise with data received or generated by third parties. Another aspect that may create concern is the ability to respond to customer queries. In the automated world with minimal human involvement, the possibility of providing an additional decision, including top-up adjustments for clients, could be challenging due to system complexity automatically rejecting *ad hoc* queries. The last concern brings together all the previous challenges and relates to the social and economic aspects of an automated system. One of these is the differential treatment of individuals based on ethicality due to inadequate data or lack of mitigating measures.

In addition to the above, AI may create potential harm in financial services. Ostmann and Dorobantu emphasise problems associated with AI systems from the consumer's perspective. As AI is a newly incorporated model, problems may arise following inadequate testing or incomplete program set-up. This may lead to a situation in which the customer's risk profile will be incorrectly assessed resulting in exclusion from the market (due to recognising him or her as a high-risk profile) or an increase in the pricing of products (followed by a negative impact on risk assessment). New technology will always come with some uncertainty. Poorly performing AI systems give rise to situations where service may be denied to customers or a mismatch between product and customer needs may be created. On top of that, the customer-risk profile may escalate following software inefficiency. For example, when the AI model is not adequately checked, trading data used in the AI decision process may lead to the use of non-public information which amounts to insider trading. This situation may result in exclusion from the specific firm and to customers being locked out across the entire market. Another potential harm from the advanced technology is unlawful discrimination[344] and unfair treatment, which could happen unintentionally because of a novel model. Using complex models and difficult-to-understand outcomes may result in higher price differentiation and less transparency within the AI system. Additionally, the complexity of the structure may make it difficult to identify a weakness in the system and set up an early mitigation strategy. Further, disadvantages also arise for customers with limited access to the internet or little experience with digital devices. With the lack of or reduced human-to-human interaction, elderly customers will find it difficult to access the products and invest.[345]

[344] Frederik Zuiderveen Borgesius, 'Discrimination, Artificial Intelligence and Algorithmic Decision-Making' (2018) <https://rm.coe.int/discrimination-artificial-intelligence-and-algorithmic-decision-making/1680925d73> accessed 17 April 2022.
[345] Ostmann, Florian; Dorobantu, Cosmina (n 343).

However, all is not gloom and doom; the bright side of AI systems holds many benefits. The advantages that AI can offer are comprehensive, starting from the possibility of receiving more tailored advice, to lowering the cost of financial services and products for customers. It helps firms increase profitability and operational efficiency by automating a manual process.[346] The use of an AI system will not only boost the robo-advice platform but also increase assets under management. The main aim is to make the process quicker and more efficient. AI also has a role in compliance with the FCA's new consumer duty which has a greater focus on outcomes for consumer segments. AI could help model this scenario and achieve the expected result in a more convincing way than traditional advice.

Ostmann and Dorobantu discuss the benefits of AI in financial services. They offered in-depth analysis based on five areas: consumer protection, financial crime, competition, the stability of firms and markets, and cybersecurity. In the consumer protection area, potential benefits lie in many aspects, from financial inclusion and affordability to receiving financial advice. Improved technology and systems also enhance risk-profiling capabilities and lead to sounder decisions and prices for clients. Further, improved screening and monitoring mechanisms (KYC) can result in fewer denials of service to clients. Unlawful discrimination and unfair treatment will also decrease due to new forms of data used for the algorithmic model. The new approach will mitigate examples where clients were treated differently based on their background, ethicity, or status. In addition, the structure of AI used in marketing and product design contexts will help create better-customised products for clients' needs. Financial advice is more tailored and matches the client's goals and values.

From the portfolio management perspective, AI opens the possibility of applying cost-efficient investments, improves the trade execution system, and diminishes the impact of psychological biases in the investment process. In summary, from the consumer protection side, AI brings many positive benefits as it improves how financial advice is delivered and accessible, including an easier way to understand and manage risk profiles. An important aspect is an advanced system to prevent financial crime such as fraud or money laundering. AI provides a system of safeguards using a new form of sensor-enabled authentication. In the case of a cyber-security threat, AI benefits from early detection of the vulnerabilities within the system and so allows companies to fix bugs before an attack happens and respond to attacks timeously.[347]

[346] Lin (n 324) 10.
[347] Ostmann, Florian; Dorobantu, Cosmina (n 343) 33–45.

In sum: the industry's benefits from using AI can be grouped in six categories. Initially, organisations use AI to improve operational speed and reduce costs by streamlining processes, automating regulatory compliance, and real-time analysis of incoming data. A second category focuses on mitigating or eliminating human error and allowing employees to focus on more creative tasks. AI also offers "always-on" services through various digital channels which are always available to clients. Further, with AI assistance, customised products and advice tailored to individual customers can be delivered by consolidating data from a user's financial life. This allows for more accurate predictions which enable better informed decision making. The last category involves extracting insights from new data types which allows companies to reach untapped markets.[348] Moreover, AI can introduce novel methods for evaluating risk so enabling institutions to extend financial services to individuals in small businesses without traditional credit histories. It can also be used to detect fraud and anti-money laundering activities, including those yet to be uncovered. Another AI characteristic that has implications for democratising financial services is the possibility of providing low-cost alternatives to traditional forms of financial services, such as financial advice and investment-management services mentioned earlier.

AI systems can bring many benefits to society, the economy, and firms; however, it is essential to understand their limitations and potential harm.

4.3 Regulating AI in Finance

4.3.1 General AI framework and principles

The development and usage of AI have increased significantly in recent years and are starting to become the norm in the industry. Regulators have also begun to become more interested and involved in the new technology by developing a more sophisticated understanding of the area.

With a lack of a uniform legislation system for AI, many companies and organisations have started to discuss and publish AI governance principles.[349] Overall, the firms agree on the principles. However, difficulties arise as to what extent and how to translate them into the internal system.

[348] Marshall Lincoln and Keyur Patel, 'It's Not Magic: Weighing the Risks of AI in Financial Services.' (CSFI Centre for the Study of Financial Innovation 2019) <https://www.european-microfinance.org/sites/default/files/document/file/risks_of_AI.pdf.pdf> accessed 1 December 2023.
[349] Algorithm Watch Project, 'AI Ethics Guidelines Global Inventory' <https://inventory.algorithmwatch.org> accessed 4 April 2022; OECD.AI, 'National AI Policies & Strategies' <https://oecd.ai/en/dashboards/overview> accessed 17 April 2022.

The first notable paper was presented in late 2017 by the UK House of Lords Select Committee on Artificial Intelligence. It suggested five overarching principles for an AI Code.[350] In 2019 the Inter-governmental Standard of AI was issued by the OECD's Committee on Digital Economy Policy ("CDEP"). The recommendations were divided into two sub-sets. The first presented five value-based principles for responsible stewardship of trustworthy AI:

> '1) inclusive growth, sustainable development and well-being; 2) human-centred values and fairness; 3) transparency and explainability; 4) robustness, security and safety; 5) accountability'.[351]

A call went out to all AI actors and stakeholders to incorporate the principles and promote the standards.

The second sub-set contained another five recommendations for policymakers referring to national policies and international cooperation for trustworthy AI:

> '1) investing in AI research and development; 2) fostering a digital ecosystem for AI; 3) shaping an enabling policy environment for AI; 4) building human capacity and preparing for labour market transformation; 5) international co-operation for trustworthy AI'.[352]

Further, in the Alan Turner Report the AI principles landscape was presented. These are mainly based on the official guide issued for the responsible design and implementation of AI systems in the public sector.[353] To date, many government bodies, organisations, and associations have issued their principles for trustworthy and responsible AI.[354] There are five principles highlighted in the Report: fairness, sustainability, safety, accountability, and transparency. The first principle – "fairness", requires the AI system to apply non-discriminatory and equal treatment for all individuals while avoiding unfair bias and differentiation. Hence, AI systems should be evaluated based on sufficient, appropriate, accurate, and recent datasets (data fairness); adopt measurements, processes, and parameters to limit bias (design fairness); and which do not lead to inadequate impacts on people's lives (outcome fairness); and are created and implemented by developers with adequate training and

[350] House of Lords, 'AI in the UK: Ready, Willing and Able?' (Select Committee on Artificial Intelligence) Report of Session 2017–19 <https://publications.parliament.uk/pa/ld201719/ldselect/ldai/100/100.pdf> accessed 17 April 2022.
[351] OECD, 'Recommendation of the Council on Artificial Intelligence' (n 136).
[352] OECD, 'Recommendation of the Council on Artificial Intelligence' (n 180) 4.
[353] David Leslie, 'Understanding Artificial Intelligence Ethics and Safety: A Guide for the Responsible Design and Implementation of AI Systems in the Public Sector' (The Alan Turning Institute 2019) <https://zenodo.org/record/3240529> accessed 15 April 2022.
[354] G20, 'Ministerial Statement on Trade and Digital Economy' <https://www.mofa.go.jp/files/000486596.pdf> accessed 17 April 2022; European Commission, 'High Level Expert Group on Artificial Intelligence, Ethics Guidelines for Trustworthy AI' (n 309).

trust (implementation fairness).[355] Sustainability is the second principle. It recognises a broad role for ethical values (classified as "SUM"[356] values) which consists of four aspects: respect, connection (open connection with each other), care (well-being care), and protection (protection of justice and social values). The third principle is "safety" and is closely linked to suitability. It expresses the consideration of making the AI system safe from the beginning of implementation. AI is constantly evolving and so faces many challenges and uncertain situations. The aim is to build a robust and technically sound system which will protect and prevent improper use. The following principle is accountability which is broken down into internal and external accountability. Allocation of responsibilities within an organisation is crucial, and selected people need to be accountable for the trustworthiness of the AI system. There is also external accountability which applies, for the most part, to customers, regulators, and stakeholders. At this stage, the organisation should be responsible for explaining the AI system's use and outputs clearly. This is linked to two sub-sets of accountability: answerability, and auditability. Answerability means that each AI system should have humans assigned to each step of the process across the entire system. This will enable the receipt of clear and coherent responses regarding the decisions AI presents and the tasks it performs. Further, auditability is vital and requires keeping track of steps taken during the design, development, and distribution processes. The last aspect is transparency. As the AI system is complex and challenging to explain, collecting and sharing information about the AI model's design is crucial for better understanding the whole system and infrastructure. This is also closely linked with accountability in that it depends on the information gathered from the AI system. The principle of transparency plays an essential part compared to the four principles presented above. It is recognised as the basis of all AI principles as without the information, responsibilities cannot be assigned.[357] To ensure that the innovation will be recognised as trustworthy and used responsibly, firms need to show that information or data within the system complies with pre-condition requirements of transparency. The essential element is the relevant information used in the process. While there are many different approaches and categories of information[358], the two most important are system-logic information (which relates to the operational logic of the AI), and process information (which applies to design, development, and deployment). Further, two forms of transparency can be distinguished: system transparency, and process transparency where stakeholders access the system-logic and process information. Procedures need to be in place for obtaining and interpreting data directly and indirectly. Improper

[355] For more detailed information, see Leslie (n 353) 13–20.
[356] SUM values defined as 'support, underwrite and motivate' values.
[357] Ostmann, Florian; Dorobantu, Cosmina (n 343) 29–32.
[358] Leslie (n 353); European Commission, 'High Level Expert Group on Artificial Intelligence, Ethics Guidelines for Trustworthy AI' (n 309).

use or misunderstanding may create concerns such as negative social and economic impact, compliance issues,[359] or obstacles in explaining.[360]

Another prominent report was issued by the European Commission, under the title 'Ethics Guidelines for Trustworthy AI', which pointed to three components where AI is recognised as trustworthy. The system:

> '(i) … should be lawful, complying with all applicable laws and regulations; (ii) it should be ethical, ensuring adherence to ethical principles and values; and (iii) it should be robust, both from a technical and social perspective since, even with good intentions, AI systems can cause unintentional harm'.[361]

However, Mittelstadt[362] has noted that AI ethics initiatives are not above criticism despite being a global topic for discussions. In recent years, the sector's "new code or guidance" has created vague, high-level principles with only a few closing recommendations. The aim, from the industry perspective, was to delay regulation. However, by committing to ethical principles and codes during the development of AI, policy makers have not pursued incorporating a new specific law.[363] Recently, the close relationship between AI principles and medical ethics has attracted attention. The classic principles of medical ethics emerged from the groundwork of practitioners, committees, and medical institutions and is well researched with a long history built over time. This means that the AI-principled approach may not be a "perfect fit" in the world of medical ethics AI development has four characteristics which suggest that a principled approach might have only limited impact on design and governance. According to Mittelstadt, AI development lacks common aims and fiduciary duties, a well-established professional history and norms, proven methods to translate principles into practice, and robust legal and professional accountability mechanisms when compared to the medical sphere.[364] In the medical sphere, the main objective is to promote the health and well-being of the patient built on a relationship of trust between the practitioner and the patient. By contrast, according to Mittelstadt, in the AI world no clear fiduciary duty has been established within what appears to be an ununified regulatory framework. His view is largely based on broad aspects of AI development and does not represent the full picture. It is worth noting that when AI is used to provide financial

[359] Such as unlawful discrimination, market manipulations, and inside trading.
[360] Detail explanation and further consideration of transparency can be found in Ostmann, Florian; Dorobantu, Cosmina (n 343) 46–64.
[361] European Commission, 'High Level Expert Group on Artificial Intelligence, Ethics Guidelines for Trustworthy AI' (n 309) 5.
[362] Brent Mittelstadt, 'Principles Alone Cannot Guarantee Ethical AI' (2019) 1 Nature Machine Intelligence 501.
[363] Thilo Hagendorff, 'The Ethics of AI Ethics: An Evaluation of Guidelines' (2020) 30 Minds and Machines <http://link.springer.com/10.1007/s11023-020-09517-8> accessed 15 June 2022.
[364] Mittelstadt (n 362) 2.

advice, a fiduciary relationship does indeed exist.[365] The second difference relates to the lack of a long history and norms of "good behaviour". Medicine has developed and shaped its ethical standards and codes over many years, while AI remains relatively new and still in the developmental stage. Hence, AI lacks supported methods for translating principles into practice. This is another weakness of a principled approach to AI ethics that cannot be resolved overnight. The final difference relates to the absence of fully developed accountability mechanisms in AI. Medicine, on the other hand, is governed by legal frameworks created over time. To summarise the weaknesses: 'shared principles are not enough to guarantee trustworthy or ethical AI in the future'.[366] Mittelstadt made a few recommendations that should be considered. For example, a new and improved review process based on precise requirements at all levels and support for the bottom-up approach, as a top-down process is inadequate given the complexity of the AI system.[367]

The European Commission was one of the first to present a draft of an approach to regulating AI in financial services.[368] In the proposed Act, AI is defined as:

> 'software that is developed with one or more of the techniques and approaches listed in Annex I of the proposal and can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with'.[369]

Although no further explanation is given in the proposal, it appears that all possible uses of AI in the robo-advisory area would be subject to this definition. The proposal contains four specific objectives for an AI system: to be safe and respect the existing law on fundamental rights and EU values; to enhance governance and safety requirements applicable to the AI system; to ensure legal certainty to facilitate investments; and to facilitate the development of a single market.[370] The proposed rule would apply to all providers of AI systems irrespective of whether they were established within the EU, as well as to the users of AI systems. The European Union first focuses on the introduction of a risk-based approach to AI which is presented as four risk levels: unacceptable risk; high risk; limited risk; and minimal risk. The proposal includes a list of prohibited AI practices that are unacceptable in all circumstances, as well as a list of high-risk AI applications. Rules will define specific obligations and clear requirements that need to be followed in high-risk systems. On top of that, the enforcement system and governance structure need to be set up at both European and national levels. As stated in

[365] More information in chapter 7.
[366] Mittelstadt (n 362) 9.
[367] ibid 8–10.
[368] European Commission, 'Proposal for a Regulation Laying down Harmonised Rules on Artificial Intelligence - Document 52021PC0206' (n 181).
[369] ibid 39.
[370] ibid 3.

the Act, the European Artificial Intelligence Board will be established together with AI regulatory sandboxes to support innovation. The aim of the new proposal is to further strengthen Europe's competitiveness and industrial basis in AI. Incorporating the new approach, the aim will be to limit or avoid fragmentation at both the domestic and international levels. Harmonisation of the rules will bring accountability and reduce risk without restricting innovation. On the other hand, there are voices that new AI regulations are being introduced prematurely and could be too strict resulting in more harm than good. Instead, a new approach should be more flexible and based on principles rather than complex legal rules. Furthermore, many current standards and principles may be used as a new foundation for AI.

In September 2022, the European Commission proposed a legal framework for artificial intelligence, known as the "AI Liability Directive".[371] The Directive forms part of a broader package of EU legal reforms to regulate AI and emerging technologies. The aim is to address the specific challenges posed by AI to existing liability rules while also ensuring that users of AI enjoy the same level of protection as persons harmed by other technologies. With an increase in AI systems over time, the probability of loss and damage to individuals and organisations is likely to increase. There is a concern that the current liability rules for loss and damage are inadequate and unsuited to handling liability claims resulting from AI systems. Under current rules victims need to prove that an omission and wrongful action caused the damage. In the case of AI, it will be very difficult and costly to identify the person liable due to the complexity and lack of transparency of AI systems. Victims will, therefore, be left without the possibility of claiming compensation. The aim of the proposal is to ensure that claimants suffering loss or damage will have recourse to damage or other available remedies. The AI Liability Directive is planned to complement the AI Act discussed earlier.

It is worth adding that crypto-assets do not fall under the AI regulatory regime. This topic is covered by a separate legislative framework known as the Regulation on Markets in Crypto-Assets ("MiCAR" or "the Act"), which is an essential part of the EC Digital Finance Package. The new regulation was introduced in June 2023 in the EU and focuses on crypto-assets that are not regulated elsewhere – eg, in the MiFID or the E-money Directive. The Act defines crypto-assets as 'a digital representation of value or rights which may be transferred and stored electronically, using distributed ledger technology or similar technology'.[372] Rules also refer to crypto-assets known as "stablecoins" and include asset-

[371] European Commission, 'Proposal for a Directive of the European Parliament and of the Council on Adapting Non-Contractual Civil Liability Rules to Artificial Intelligence (AI Liability Directive), 52022PC0496' <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022PC0496> accessed 20 April 2023.
[372] Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on markets in crypto-assets, and amending Regulations (EU) No. 1093/2010 and (EU) No. 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937 2023 (OJ L150/40).

referenced tokens ("ARTs"), e-money tokens ("EMTs"), and utility tokens. But importantly it does not cover bitcoin or other crypto-currencies, which remain outside the regulatory perimeter and pose significant risks to both systemic stability and investor protection The Act establishes a comprehensive set of requirements for prudential regulation of crypto-assets. The aim is to support innovation and fair competition and to maintain a high level of consumer protection while mitigating risks to the financial stability of the markets. To achieve the aim, new rules were also introduced to prohibit market abuse of any type of crypto-asset transactions and services. These include unlawful disclosure of inside information, insider trading, and any actions that could lead to manipulation or distribution of crypto-assets.

4.3.2 AI regulatory approach in the UK

AI is a major topic in the UK's financial sector and has led to numerous initiatives from both the government and private sectors. All are aimed at implementing new technology without harming society or the economy. Notable among these are the introduction of the AI Public-Private Forum ("AIPPF")[373] by the Bank of England and the Financial Conduct Authority ("FCA") to further the dialogue on AI between the public sector, the private sector, and academia. The forum aims to collect and share information about AI's practical and ethical use. However, not only the FCA and the BoE are involved from a regulatory perspective. The Competition and Markets Authority ("CMA"), the Information Commissioner's Office ("ICO"), and the Office of Communications ("Ofcom") set up the Digital Regulation Cooperation Forum in 2020[374] to bring cooperation, coordination, and a coherent regulatory approach to online platforms.

As a new form of digital technology, AI does not have a dedicated form of regulation in the UK. The complexity of its models and constant development in the area make it difficult to come up with a single, all-encompassing piece of legislation. Hence, the treatment of AI falls under the current regulatory rules which may not always be relevant given the differences in the nature of the product. The UK set out the Plan for Digital Regulation which noted that well-designed rules might bring growth within the system and shape technological innovation. In contrast, restrictions or inadequate rules can limit the development of new ideas.[375] Looking at the extensive structure of the legislation

[373] The Bank of England, 'The AI Public-Private Forum: Final Report' (2022) <https://www.bankofengland.co.uk/research/fintech/ai-public-private-forum> accessed 16 April 2022.
[374] Competition and Markets Authority, Information Commissioner's Office, Ofcom and FCA, 'The Digital Regulation Cooperation Forum' (2020) <https://www.gov.uk/government/collections/the-digital-regulation-cooperation-forum> accessed 13 April 2022.
[375] Department for Science, Innovation & Technology, 'Digital Regulation: Driving Growth and Unlocking Innovation' <https://www.gov.uk/government/publications/digital-regulation-driving-growth-and-unlocking-innovation/digital-regulation-driving-growth-and-unlocking-innovation> accessed 17 April 2022.

in the UK, it can be seen that despite the lack of a single AI Act, there are many aspects of the use and development of AI which fall under the "cross-sector" legislation and regulators. Examples can be found in human rights and equality (Equality and Human Rights Commission), data protection (Information Commissioner's Office), competition (Competition and Markets Authority), medical products (Medicines and Healthcare Products Regulatory Agency), and financial services (Financial Conduct Authority).

As a response to constantly evolving technology, many UK regulators began providing guidance on how to satisfy their legal requirements. One of these is the Information Commissioner's Office ("ICO")[376] which has issued guidance for AI firms. As the new technology is, for the most part, based on collecting and using personal data, it falls under the Data Protection Act ("DPA") and the General Data Protection Regulation ("GDPR"). The guidance provides an explanation and steps that need to be taken to comply with data protection laws.[377] Additionally, the Centre for Data Ethics and Innovation ("CDEI") has issued interactive guidance to help firms understand how assurance techniques can be applied to AI systems. The guidance includes background information, top elements of assurance engagement, and the benefits that can be achieved.[378] This was created with close consideration of the AI Assurance Roadmap which sets out the steps required to build a world-leading AI assurance ecosystem in the UK.[379]

At the beginning of 2021, the Government AI Council set up the AI Roadmap to help government develop the UK, AI strategy. It consisted of sixteen recommendations divided into four different sub-groups[380] to determine the precise direction the UK should take and create a positive technological future for society. The UK government issued the UK National AI Strategy Report following the roadmap, which set up a ten-year plan to make the UK an "AI Superpower".[381] The programme will work if three fundamental pillars are introduced: long-term investment in the AI ecosystem; cross-

[376] ICO – Information Commissioner's Office – UK independent authority set up to uphold information rights in the public interest, promoting openness by public bodies and data privacy for individuals.
[377] ICO, 'Explaining Decisions Made with AI' <https://ico.org.uk/for-organisations/uk-gdpr-guidance-and-resources/artificial-intelligence/explaining-decisions-made-with-artificial-intelligence/> accessed 17 April 2022.
[378] Centre for Data Ethics and Innovation, 'AI Assurance Guide' <https://cdeiuk.github.io/ai-assurance-guide> accessed 17 April 2022.
[379] Centre for Data Ethics and Innovation, 'The Roadmap to an Effective AI Assurance Ecosystem' <https://assets.publishing.service.gov.uk/media/61b0746b8fa8f50379269eb3/The_roadmap_to_an_effective_AI_assurance_ecosystem.pdf> accessed 17 April 2022.
[380] Four pillars introduced by the report are: Support for research, developments and innovation; Literacy in AI across the population with enhanced AI-related skills at all levels of educational and lifelong attainment; Sound physical, digital and virtual infrastructure; and National, cross-sector adoption; The UK AI Council, 'AI Roadmap' <https://assets.publishing.service.gov.uk/media/5ff3bc6e8fa8f53b76ccee23/AI_Council_AI_Roadmap.pdf> accessed 17 April 2022.
[381] HM Government, 'National AI Strategy' <https://assets.publishing.service.gov.uk/media/614db4d1e90e077a2cbdf3c4/National_AI_Strategy_-_PDF_version.pdf> accessed 13 April 2022.

sector enhancement; and a pro-innovation regulatory and governance framework. The year after the introduction of the Roadmap, the UK Government set up a new initiative to shape global standards for AI. The AI Standards Hub is led by the Alan Turning Institute with support from the British Standards Institute and the National Physical Laboratory. The new hub aims to increase the contribution to developing global AI technical standards.[382] As per recent research, the number of UK businesses using AI will double within the next twenty years.[383] Further, a White Paper on AI regulation has been published detailing plans for implementing a proportionate, future-proof, and pro-innovation approach to AI regulation. To help boost innovation, the UK decided to focus on the context in which AI is used rather than targeting specific technologies. This enables balancing the benefits and the potential risks which may vary depending on the foundation models applied. Therefore, the UK Government's approach is focused more on monitoring developments together with innovators and setting up expectations, than on placing unnecessary regulatory burdens on AI. To summarise: a single AI regulator will not be created in the UK for the time being. The responsibility for AI governance will be assigned to the existing regulators: the Health and Safety Executive, the Equality and Human Rights Commission, and the Competition and Markets Authority. These bodies aim to develop their own AI approaches suited to their sectors. The framework presented in the White Paper is designed to be flexible. As the technology evolves, the approach will need to be adjusted. The pro-innovative AI framework is characterised by five principles applicable to all sectors of the economy: safety, security, and robustness; appropriate transparency and explainability; fairness; accountability and governance; and contestability and redress. All these principles will be issued on a non-statutory basis and implemented by the respective regulators. This pro-innovative approach gives firms greater flexibility to innovate instead of holding back AI innovation due to overregulation.[384] Some UK regulators had already adapted their approaches to AI-driven technologies. In 2022 the Medicines and Healthcare Products Regulatory Agency ("MHRA") issued a roadmap presenting the requirements for AI used in medical devices.[385] The regulatory framework for medical devices was also updated to protect patients. In addition, agreement was reached on establishing a regulatory sandbox for AI, together with continuing international engagement to support inter-operability across different regulatory regimes.

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[382] UK Government Press Release, 'AI Standards Hub' (2022) <https://www.gov.uk/government/news/new-uk-initiative-to-shape-global-standards-for-artificial-intelligence> accessed 1 June 2022.
[383] Capital Economics Limited, 'AI Activity in UK Businesses' (2022) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1045381/AI_Activity_in_UK_Businesses_Report__Capital_Economics_and_DCMS__January_2022__Web_accessible_.pdf> accessed 1 June 2022.
[384] Department for Science, Innovation & Technology, 'A Pro-Innovation Approach to AI Regulation' (2023) CP 815 <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1176103/a-pro-innovation-approach-to-ai-regulation-amended-web-ready.pdf> accessed 10 October 2023.
[385] Medicines & Healthcare products Regulatory Agency, 'Software and AI as a Medical Device Change Programme - Roadmap' <https://www.gov.uk/government/publications/software-and-ai-as-a-medical-device-change-programme/software-and-ai-as-a-medical-device-change-programme-roadmap> accessed 1 November 2023.

The UK also supports international cooperation with partners around the world. The main aim is to shape international norms and standards in constantly developing AI. On the international plane the UK is actively engaged with the OECD[386] which supports governments by analysing the impacts of AI technologies and applications; the Council for Europe.[387] and the Global Partnership on AI ("GPAI")[388], to close the gap between the theory and practise of AI. The government tries to strengthen coordination and information-sharing internationally to build a better-standardised approach to AI and retain its status as a global leader in AI.

As a next step, in September the UK Government announced Isambard AI as the UK AI Research Resource which will be one of the most powerful super-computers built for AI.[389] Further, the Frontier AI Taskforce, dedicated to the safety of AI, was launched.[390] In response, the UK launched the world's major AI Safety Summit in November and created the Artificial Intelligence Safety Institute ("AISI") which will focus on evaluating, examining, and testing new types of AI. The main aim is to keep people safe in the fast-changing and unpredictable AI landscape.[391]

4.3.3 AI governance

Recognising the need for eventual regulation, the UK aims to lead in the realm of AI. However, it currently favours an AI governance approach in preference to external regulation as it regards the imposition of strict rules as premature. This approach involves internal requirements for firms in which overarching objectives are set that allow regulated entities to determine specific details themselves. This fosters a balance between innovation and responsible AI practices. The adoption of innovative governance approaches is needed. There are different forms, such as adaptive governance and hybrid or de-centralised governance. The main characteristic of both is the diminishing role of the government. The adaptive approach focuses more on flexible strategies. These involve continual

[386] OECD, 'Artificial Intelligence' <https://www.oecd.org/digital/artificial-intelligence/> accessed 17 April 2022.
[387] Council of Europe, 'Council of Europe and Artificial Intelligence' <https://rm.coe.int/brochure-artificial-intelligence-en-march-2023-print/1680aab8e6> accessed 17 April 2022.
[388] Global Partnership on AI, 'AI' <https://gpai.ai> accessed 17 April 2022.
[389] UK Government Press Release, 'Bristol Set to Host UK's Most Powerful Supercomputer to Turbocharge AI Innovation' (2023) <https://www.gov.uk/government/news/bristol-set-to-host-uks-most-powerful-supercomputer-to-turbocharge-ai-innovation> accessed 1 November 2023.
[390] Department for Science, Innovation & Technology, 'Capabilities and Risks from Frontier AI. A Discussion Paper on the Need for Further Research into AI Risk' (2023) <https://assets.publishing.service.gov.uk/media/65395abae6c968000daa9b25/frontier-ai-capabilities-risks-report.pdf> accessed 11 November 2023.
[391] UK Government, 'Introducing the AI Safety Institute' (2023) CP 960 <https://assets.publishing.service.gov.uk/media/65438d159e05fd0014be7bd9/introducing-ai-safety-institute-web-accessible.pdf> accessed 1 November 2023.

adjustment and improvement of regulations and policies based on evolving information and offer more proactive risk identification and mitigation. Hybrid governance, on the other hand, can exist in the form of co-regulation, enforced self-regulation, and meta-regulation. It creates a combination of state and non-state actors, where ongoing assessment is required to balance the innovation.[392] In other words, meta-regulation is state regulation that supports business self-regulation. In contrast to the traditional forms of regulation, where rules are established upfront, meta-regulation allows firms to create or adjust their own rules while observing and monitoring those rules. It is an alternative to the traditional form of command-and-control regulation, and has attracted a great deal of attention from both scholars and regulators.[393] There are many benefits – but also challenges – associated with meta-regulation. One of its strengths is the firm's knowledge of risks generated by its activities. This information is not readily available to regulators, especially in the case of technological innovation. Also, firms will be focused on finding the most cost-effective solution to their own issues and are more likely to comply with rules which they themselves set up. Another benefit associated with meta-regulation is the possibility of avoiding the problem of "creative compliance". This means that the firm, on one hand exercises box-ticking compliance rules, while on the other it follows self-serving rules for its own benefit.[394] The potential shortfall in accountability can be recognised as a challenge with meta-regulation. Further, encouraging firms to commit not only to business goals but also to social expectations, may be difficult. An additional challenge comes from "regulatory inertia" where the regulator decides not to take further steps as it believes that almost everything has already been done by regulated firms. This situation may create a problem as the regulator can over-rely on market discipline.[395]

Safe adoption of AI within the financial services is crucial and here governance plays an essential role. It helps safeguard the firm by imposing a set of rules, controls, and policies in relation to the use of the AI system. It also ensures accountability. Good early practices create adequate protection through a sound risk-management system. This notwithstanding, in certain respects governance may prove challenging to achieve. AI may have the decision-making capacity and limit or eliminate human involvement in critical decisions. It is essential from a governance perspective to have a cross-functional approach within a firm. Diversity of skills, transparency, and communication are the key elements of excellent governance. But the firm must also ensure that the appropriate level of

[392] Araz Taeihagh, 'Governance of Artificial Intelligence' (2021) 40 Policy and Society 137.
[393] Cary Coglianese and Evan Mendelson, 'Meta-Regulation and Self-Regulation' in Robert Baldwin, Martin Cave and Martin Lodge (eds), Cary Coglianese and Evan Mendelson, *The Oxford Handbook of Regulation* (Oxford University Press 2010) <https://academic.oup.com/edited-volume/34523/chapter/292903839> accessed 16 June 2023.
[394] Julia Black, 'Using Rules Effectively' in Christopher McCrudden (ed), *Regulation and Deregulation: Policy and Practice in the Utilities and Financial Services Industries* (Clarendon Press 1999).
[395] Folarin Akinbami, 'Is Meta-Regulation All It's Cracked up to Be? The Case of UK Financial Regulation' (2013) 14 Journal of Banking Regulation 16.

understanding and awareness of the AI system focusing on its benefits, risks, and challenges, is maintained across the organisation.[396]

With the increasing role of AI in society and the economy, questions are emerging around the regulatory aspects such as accountability, fairness, and bias[397] in decisions taken by the AI. The system's complexity will bring further uncertainty regarding risks, safety, and transparency. The company's new or existing governance structure should clearly define the boundaries regarding the roles and responsibilities across all levels of the organisation. It also needs to decide if the firm will have to centralise (eg, in a single person – Chief AI Officer or body) or decentralise (spread across several senior managers) responsibilities for AI. Policies and standards should be in place, and the business area managed should be accountable for the outputs and decisions made using the AI model. Currently, in the Senior Managers and Certification Regime ("SM&CR")[398] and the FCA Code of Conduct, the concept of reasonable step is found. In the case of the former, it requires that senior managers take reasonable steps to ensure that its function is controlled effectively and in compliance with regulations. When it comes to AI governance, this concept could be extended and treated as a fundamental approach in a new system. This concept underscores the importance of accountability and responsible behaviour in financial services. There are five points that can be distinguished to help firms ensure that AI systems are safe and contribute positively to society simply by following "reasonable steps".

1. Design and Development: Reasonable steps need to be taken to ensure that AI systems are designed and developed in an ethical, fair, and transparent way. Impact across stakeholders needs to be covered, including mechanisms for accountability and explainability.[399]
2. Deployment: When the AI system is deployed, reasonable steps should be taken to ensure that the system operates as planned and risks and harms are mitigated. In this case, extensive and rigorous testing and validation processes need to be put in place, including monitoring and audit review.[400]
3. Monitoring: After deployment, a reasonable step is to continuously monitor the performance and AI operating systems. This will help identify potential gaps and close issues.[401]

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[396] The Bank of England, 'The AI Public-Private Forum: Final Report' (n 373) 29.
[397] Instances of bias and discrimination were built by accident within the AI system as highlighted in House of Commons Science and Technology Committee, 'Robotics and Artificial Intelligence' (2016) <https://publications.parliament.uk/pa/cm201617/cmselect/cmsctech/145/14502.htm> accessed 17 June 2022.
[398] FCA, 'Senior Managers and Certification Regime' <https://www.fca.org.uk/firms/senior-managers-certification-regime> accessed 17 April 2022.
[399] Jonas Tallberg and others, 'The Global Governance of Artificial Intelligence: Next Steps for Empirical and Normative Research' (2023) 25 International Studies Review <https://academic.oup.com/isr/article/doi/10.1093/isr/viad040/7259354> accessed 16 August 2023.
[400] DLA PIPER, 'AI Governance: Balancing Policy, Compliance and Commercial Value' (2023) <https://www.dlapiper.com/en-gb/insights/publications/2023/09/ai-governance-balancing-policy-compliance-and-commercial-value#download> accessed 1 November 2023.
[401] House of Commons. Science, Innovation and Technology Committee (n 330).

4. Regulation Compliance: The important issue here is to show compliance with all relevant regulations and laws, including regular audits and reviews, to ensure that the firm fulfils its obligations regarding compliance.[402]
5. Accountability: Firms need to take reasonable steps to build accountability in the AI system. The aim is to define basic conditions of accountability throughout the entire AI life cycle, with additional questions that should be asked when assessing AI systems.[403]

Despite the assessment process being more judgement-based, it still requires the firm to introduce and incorporate additional measures such as an ethics framework,[404] documentation maintenance, and procedure, oversight, reporting and audit checks. The firm may introduce and link the top-down with bottom-up governance approaches. Further vital aspects are transparency and communication. There are two audience groups. The first consists of AI developers, compliance teams, and regulators. The second are consumers who may be affected by AI decisions. In the first group, firms should be able to provide accurate details about decisions made and assure the reliability of recommendations. The second group, which includes consumers impacted by model decisions, need to be informed when the model is used in automated decisions. Transparency and communication are crucial to explaining how decisions were made using non-technical language. The information gap between customers and companies may pose challenges in achieving the desired transparency levels.[405]

The financial supervisory authority also conducts external governance. However, it is challenging to tackle the AI risk using the traditional method of supervision. Buckley, Zetzsche, and others have highlighted five examples of inadequate control.[406] They start with the authorisation of AI. With the increasing and enhanced role of AI, the topic of authorisation arose more often in the literature. When a company with a business model based on AI starts to look for authorisation, it needs to present and have in place its business and operational plans, including a client protection approach, cybersecurity strategies, and a contingency plan. This aside, depending on the industry, the specific AI application and some form of regulatory capital will be required to ensure financial stability and mitigate risks associated with new technologies like AI.

This seems fair and reasonable and confirms the main aim, but it also creates uncertainty. Authorisation can be costly and time consuming. There is also concern regarding the rules, as AI codes change regularly following improvements or enhancements. Applying and issuing re-

[402] Patricia Gomes Rêgo De Almeida, Carlos Denner Dos Santos and Josivania Silva Farias, 'Artificial Intelligence Regulation: A Framework for Governance' (2021) 23 Ethics and Information Technology 505.
[403] Claudio Novelli, Mariarosaria Taddeo and Luciano Floridi, 'Accountability in Artificial Intelligence: What It Is and How It Works' [2023] AI & Society <https://link.springer.com/10.1007/s00146-023-01635-y> accessed 16 June 2024.
[404] Recommendation about the ethics can be found in UNESCO, 'Ethics of Artificial Intelligence' <https://www.unesco.org/en/artificial-intelligence/recommendation-ethics> accessed 17 April 2022.
[405] The Bank of England, 'The AI Public-Private Forum: Final Report' (n 373) 34.
[406] Buckley and others (n 325) 62–66.

authorisation will lead to further improvements being postponed as it can prove uneconomical for smaller companies.[407] Moreover, the conduct of self-learning AI cannot be solely controlled by software as self-learning AI systems are able to learn and evolve by data and experience which points to instability. Further, as self-learning AI is constantly developing, the rules will struggle with frequent, if not daily, changes to AI systems. Re-authorisation is not an ideal option as it can be costly and hamper the spirit of innovation due to obstacles arising from the rules. The following examples supporting the inadequacy of the governance regime cover the outsourcing of rules, the role of AI, and crucial functions associated with it, the qualification of core personnel, and finally, sanctioning rules. AI appears to have limitations in compliance monitoring due to a lack of an ethical screening functionality. The rules are also intentionally incomplete in the light of the need to adjust to a fast-changing environment. Consequently, AI may have difficulties in judging the situation, which could lead to misinterpretation or misreporting of risks. Turning to the fit and proper test for core personnel, as firms rely so heavily on AI, new qualifications, or modifications to the existing rules for senior management may be required.[408] Overall, regulators look to improve the monitoring and detection system of AI to minimise harm to consumers; however, a lot still needs to be done in the fast-changing AI environment.

4.3.4 Investor protection

The AI model provides services to consumers on both an investment and execution basis. Access to the investment should be open to everyone and allow customers with a lack of financial knowledge to invest. In this respect, AI provides an excellent opportunity for all to invest by allowing them better freedom of choice. However, it should also ensure security for investors. The regulatory focus appears to be on both *ex-ante* and *ex-post* protection. *Ex-ante* applies primarily to reviewing the algorithms and design of the AI and the Customer Due Diligence process, whereas *ex-post* looks at liability and compensation. Investor protection is a key element in the AI system. As AI is consumer-facing, the fiduciary requirements apply as for traditional advice. The providers of AI are obliged to act in the client's best interest and not create a conflict of interest.

Recently, the FCA introduced the consumer duty ("the duty")[409] to increase the level of consumer protection in retail financial markets by setting higher standards and putting consumers' needs first.

[407] Luca Enriques and Dirk Andreas Zetzsche, 'Corporate Technologies and the Tech Nirvana Fallacy' (2019) 72 Hastings Law Journal <https://www.ssrn.com/abstract=3392321> accessed 16 June 2022.
[408] Buckley and others (n 325) 62–66.
[409] FCA, 'Consumer Duty Sets Higher Standards for Financial Services Customers' <https://www.fca.org.uk/news/news-stories/consumer-duty-higher-standards-financial-services> accessed 1 January 2024.

Following increasing pressure related to the cost of living and consumers' difficulties in making complex decisions, change was needed to improve the services offered. The duty came into force on 31 July 2023 for financial services firms, and the rule applies to all new and existing products and services currently on sale. For older products not currently on sale, the date of implementation was extended to 31 July 2024. It was introduced as a separate principle in the FCA Handbook, which states that: 'A firm must act to deliver good outcomes for retail customers'.[410] Despite the introduction of the new rule, principle 6 (consumers' interests) and principle 7 (communications with clients) continue to apply to conduct falling outside the scope of the new rule.

Under the new approach, firms should be open and honest and support customers to pursue their financial goals. The products and services offered should be fit for purpose and offer fair value by helping consumers make the correct choices. The rule adopted is based on the outcome-focused approach. This outcome relates to products and services, price and value, consumer understanding, and consumer support. To meet the rule, firms need to consider the customers' needs, objectives, and any vulnerabilities. In terms of innovation, technological changes and market developments can be more easily adopted than prescriptive rules. Companies which are aware of the regulatory expectations can also engage in innovation to find new ways of meeting consumer needs. By focusing on outcomes, the rule aims to ensure that consumer protection levels are suitable for both present and future transactional environments. It also increases the supervision approach in that focusing on outcomes helps firms to prevent harm before it arises.[411]

As stated at the beginning of this chapter, in the UK the investor is protected under the regulatory rules, statutory law, and common law. The terms and conditions for transactions are stated in the contract, which, together with the law of equity and duty of care, fall under common law. Thus, the provider of AI should follow the rules and principles and avoid violating them. It is worth noting that in the case of the robo-advisor framework the terms of the contract are unlikely to be negotiated.

In the UK, as we saw above, there are currently no implications arising from imposing AI regulation and decisions about additional rules and principles have been left to the regulators. The FCA and the PRA need to consider the regulatory proportionality principle stated in FSMA 2000:

[410] FCA Handbook PRIN 2.1 The Principles.
[411] FCA, 'A New Consumer Duty. Feedback to CP21/36 and Final Rules' <https://www.fca.org.uk/publication/policy/ps22-9.pdf> accessed 4 January 2024.

> ‘a burden or restriction which is imposed on a person or on the carrying on of an activity, should be proportionate to the benefit, considered in general terms, which are expected to result from the imposition of that burden or restriction’.[412]

As regards consumer protection, the FCA approach is based on a combination of principles and guidance included in the FCA Handbook. The most recent principle added is the principle of ‘consumer duty’[413] as mentioned above. The firms are also required to avoid foreseeable harm to retail customers and should enable and support them to pursue their financial objectives.[414] To protect consumers, the FCA also has the power to enforce the consumer protection requirements in the Consumer Protection from Unfair Trading Regulation.[415] These prohibit unfair commercial practices and their promotion, misleading actions and omissions, and aggressive commercial practices.[416]

Another important point in consumer protection when using AI systems is the possible risk of bias and discrimination. If the discriminatory decision was made by using an AI system, the breach falls under the Equality Act 2010.[417] In this context, the consumer duty mentioned above addresses harm resulting from discrimination by requiring firms to consider the differing needs of their consumers.

4.3.5 Impact on business model

Digital innovations brought advantages for companies like new opportunities for their clients, but also additional unknown risks. Financial firms are taking up positions at the heart of the digital revolution where adaptability within the new market is key. To improve the service and adjust to the latest technological environment, companies are beginning the process of transforming and redefining their business models. In the current world, companies focus mainly on financial and regulatory risks. However, with the increase in technology, a shift needs to be made to consider risks that arise from digital transformation. Companies and their boards should start to think about this and manage digital risk to ensure that they are fit for a digital future.[418] The new business model also brings a new

[412] Financial Services and Markets Act 2000 s 3B(1)(b).
[413] FCA Handbook PRIN 2.1, The Principle 12.
[414] FCA, ‘A New Consumer Duty. Feedback to CP21/36 and Final Rules’ (n 411).
[415] Consumer Protection from Unfair Trading Regulations 2008.
[416] ibid Part 2: Prohibitions.
[417] Equality Act 2010.
[418] Deloitte, ‘Financial Services: Managing Risk to Get Fit for a Digital Future’ <https://www.deloitte.com/global/en/Industries/financial-services/perspectives/managing-risk-to-get-fit-for-a-digital-future.html> accessed 11 April 2022.

challenge – as the IMF has noted: 'There are significant challenges that affect large parts of the financial system, and if unaddressed could undermine financial soundness'.[419]

4.3.6 The legal aspect of AI

There is ongoing debate on how AI should be treated from a legal perspective.[420] AI is a set of rules, or an electronic system based on algorithms with some degree of autonomy and based on predefined requirements. It may solve tasks, learn, and think like a human. If the outcome of AI is seen as predictable, the system can be regarded as reliable. However, in many situations a human cannot predict AI actions.[421] Due to the volume of data and the complexity behind the code, the system is largely unintelligible to mere humans, especially if the machine can learn independently. This can lead to the "black box" situation which can be highly complex and challenging for humans to comprehend.[422] Further, intelligent machines lack essential elements of personhood such as feeling, souls, and consciousness; which suggests that AI should be treated more like property.[423] The software underlying AI can be protected by both copyright and patent laws. Copyright protects the specific code written by a programmer and gives exclusive rights to reproduce, modify or distribute the work. While patents may also protect innovative AI technologies, like novel algorithms or new methods used.

Recognition of an inanimate object (AI) as a person is a point worth considering. Legal entities can include humans, corporations, or quasi-artificial persons. Researchers are divided on AI's legal personhood.[424] Given the complexity of the AI system, its highly intelligent behaviour and lack of emotional and human feeling, it could be argued that AI should be classified as a quasi-artificial person. This means that AI could be granted some legal rights and protections, but not equal to those accorded humans.[425] In terms of responsibilities, they might be assigned on a case-by-case basis;

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[419] IMF, 'Global Financial Stability Report: Fostering Stability in a Low-Growth, Low-Rate Era' (2016) <https://www.imf.org/external/pubs/ft/gfsr/2016/02/> accessed 1 October 2022.
[420] Greg Swanson, 'Non-Autonomous Artificial Intelligence Programs and Products Liability: How New AI Products Challenge Existing Liability Models and Pose New Financial Burdens' (2019) 42 Seattle University Law Review 1201.
[421] Han-Wei Liu, Ching-Fu Lin and Yu-Jie Chen, 'Beyond State v Loomis: Artificial Intelligence, Government Algorithmization and Accountability' (2019) 27 International Journal of Law and Information Technology 122.
[422] Mittelstadt, Russell and Wachter (n 328) 29–31.
[423] Corneliu Puşcã, 'Legal Aspects on the Implementation of Artificial Intelligence' (2020) 7 EAI Endorsed Transactions on Creative Technologies <http://eudl.eu/doi/10.4108/eai.13-7-2018.164174> accessed 17 June 2022.
[424] Visa AJ Kurki, 'The Legal Personhood of Artificial Intelligences' in Visa Aj Kurki, *A Theory of Legal Personhood* (1st edn, Oxford University PressOxford 2019) <https://academic.oup.com/book/35026/chapter/298856312> accessed 17 June 2022; Shawn Bayern, 'The Implications of Modern Business–Entity Law for the Regulation of Autonomous Systems' (2016) 7 European Journal of Risk Regulation 297; Simon Chesterman, 'Artificial Intelligence and the Limits of Legal Personality' (2020) 69 International and Comparative Law Quarterly 819.
[425] Aleksei Gudkov, 'On Fiduciary Relationship with Artificial Intelligence Systems' (2020) 41 Liverpool Law Review 251.

hence, AI could be held accountable for its actions to some extent. However, the extent would depend on the specific legal framework that is developed to accommodate this new status.

On the other hand, experts published the open letter to the European Commission. In it they called for a rejection of personality for AI and robotics stating that: 'the legal status for a robot can't derived from the Legal Entity model'.[426] Google supports the views in the open letter and calls legal personhood for AI unnecessary, impractical, immoral, and open to abuse. In summary it was stated that under the existing law or framework, the person or organisation behind the AI will always be liable in case of damage or harm caused. Further, questions have arisen around accountability in case they violate their obligations and how machines can be punished. The next point suggests that it would be immoral to shift responsibilities to a sophisticated machine which does not have moral senses and emotions. The final point is equally important as by treating AI as a legal entity, the creators will have the possibility of hiding liability in case of any illegal activities and shift it onto the machine.[427]

Additionally, the Expert Group on Liability and New Technology – New Technologies Formation followed the same approach and noted: 'For the purpose of liability, it is not necessary to give autonomous systems a legal personality'.[428] However, over the years there have been numerous proposals regarding the possibility of adopting legal personhood.[429] If AI is declared a person by law, a legal relationship between humans and AI will be established. AI does not currently enjoy legal status in the UK. Thus, it does not have rights, duties, or liability – an AI system cannot be held legally liable and has no standing in a court of law. The aim is not to punish or restrict AI but to create ethical principles. The subject of rules is not AI but the AI's creator (operator or producer).

Legal personality does not exist in a single form. The various manifestations are applied in different formats for natural and non-natural persons. For example, a natural child enjoys a different level of legal personality than a natural adult. For an artificial or "non-natural" the corporation/company immediately springs to mind. These entities enjoy legal personality but it is limited to entering into contracts, owning property, or to sue or be sued.

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[426] Robotics, 'Open Letter to the European Commission Artificial Intelligence and Robotics' (2018) <https://robotics-openletter.eu> accessed 17 April 2022.
[427] Google, 'Perspective on Issues in AI Governance' <https://ai.google/static/documents/perspectives-on-issues-in-ai-governance.pdf> accessed 17 April 2022.
[428] European Commission, 'Liability for Artificial Intelligence and Other Emerging Digital Technologies' (2019) <https://data.europa.eu/doi/10.2838/573689> accessed 17 June 2022.
[429] Lawrence Solum, 'Legal Personhood for Artificial Intelligences' (1992) 70 North Carolina Law Review 1231.

The group experts stated that there is no need to create a legal personality for emerging technologies. They concluded that harm caused by new technology could be assigned to natural persons or the existing category of legal persons. The introduction of individual responsibility and committees designed to supervise the new technology model is a better solution than creating a new form of legal person.[430]

Currently, the extant law applicable to the traditional advisor is used in the application of robo-advisors. It can therefore be said that fiduciary standards need to be met when advice is provided. This applies to both the duty of loyalty and the duty of good faith.[431] These standards should not be excluded by contract, as in general fiduciary duties may be altered or restricted by agreement between parties. Stricter rules apply to retail consumers which gives them a measure of protection. In such a case quasi-fiduciary rules cannot be removed by contract.

Fiduciary loyalty is recognised in robo-advice because the client is entrusted with the information. As per Getzler, 'what is being sought from the fiduciary is a decent process of decision making rather than a defined or prescribed result'.[432] However, there are limitations in that a client cannot ask specific questions or receive in-depth clarification regarding the financial decision of the AI engine which took place purely on the platform. Therefore, the advice cannot be verified by the client. It is true that the information asymmetries are heavily weighted in favour of Robo financial advisers.[433]

There is ongoing discussion of the standards required for AI. There are two types of fiduciary relationship: one that arises as a matter of status; and the second that occurs as a matter of fact. In relation to the status approach, the parties may be defined as principal/agent, trustee/beneficiary, or corporation/director. It is worth noting that despite AI's lack of personhood, the human as an operator/producer can assume fiduciary obligations without concern for legal personality. Hence, AI can act as an agent for humans on the basis of the operator/producer relationship. In this situation, the human will determine a framework and delegate a right of fiduciary relationship. As mentioned earlier, the fiduciary is the person who acts for or on behalf of another person for his or her benefit. In the present context the AI acts as a functional agent and the human operator as the principal. The fiduciary relationship arises on the client entrusting property or information. The algorithms are

[430] European Commission, 'Liability for Artificial Intelligence and Other Emerging Digital Technologies' (n 428) 38.
[431] *Bristol and West Building Society v Mothew* (n 38).
[432] Joshua Getzler, 'Financial Crisis and the Decline of Fiduciary Law' in Nicholas Morris and David Vines (eds), *Capital Failure* (Oxford University Press 2014) <https://academic.oup.com/book/26081/chapter/194042900> accessed 17 June 2022.
[433] Simone Degeling and Jessica Hudson, 'Financial Robots as Instruments of Fiduciary Loyalty' (2018) 40 Sydney Law Review <https://ssrn.com/abstract=3206371> accessed 10 April 2022.

programmed to act in good faith and in the best interest of the client's needs. This notwithstanding, Fein states that robo-advisers' activities could have a limited scope. She highlights concern that a new design AI does not adequately meet the standards required of fiduciary obligations.

The leading software cannot act in clients' best interests as it only acts in terms of their goals rather than considering all available options across the market. Hence, the advice is not fully personalised and the fiduciary obligations are not met. Further, the AI engine is not engaged in the ongoing review of the client's financial situation as are traditional advisors.[434] On the other hand, the research of Capponi and others shows that robo-advisors are using different levels of risk to the clients. The scope of advice is based on information provided by the client which implies that the advice delivered is personalised.[435]

Like traditional advice, digital advice operators and producers need to comply with standards of reasonable care. The legal obligations include choosing the right system for the right task, monitoring skills, and maintaining the system.[436] Under tort law, a victim is responsible for showing causation between harm and the defendant's behaviour. The proof of damage originating from risks or conduct of the defendant needs to be documented as evidence of causation. The damages caused by AI could be difficult to establish given the complex nature of AI. It may be difficult for victims to succeed in showing causation. Moreover, if the algorithms themselves caused the damage, and the AI was fuelled by machine learning or a deep learning engine associated with external data collection, finding the proper evidence by retrieving the data will be even more challenging. The advantage of the evidence collection will also be the report made by the experts; however, it could be costly. That could be one of the obstacles to pursuing a compensation claim, even where those costs will be recoverable should the claim succeed.

As legal personhood is not recognised for damage caused by AI, the responsibility lies with the company. Even in the absence of criminal intent, the company could be liable for culpable negligence or malicious intent. Much the same applies to algorithmic trading where the company is responsible for unexpected outcomes and testing before and during the application of the algorithms.[437]

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[434] Melanie L Fein, 'Are Robo-Advisors Fiduciaries?' [2017] SSRN Electronic Journal <https://www.ssrn.com/abstract=3028268> accessed 17 June 2022.
[435] Agostino Capponi, Sveinn Ólafsson and Thaleia Zariphopoulou, 'Personalized Robo-Advising: Enhancing Investment Through Client Interaction' (2022) 68 Management Science 2485.
[436] European Commission, 'Liability for Artificial Intelligence and Other Emerging Digital Technologies' (n 428) 44.
[437] FCA, 'Markets in Financial Instruments Directive II Implementation – CP15/43' <https://www.fca.org.uk/publication/consultation/cp15-43.pdf> accessed 1 June 2022.

The events caused by the AI fall under the firm's liability umbrella. If this relates to the breach of the regulatory rules, the authorised firm is normally held liable for the breaches or actions performed by the AI system. However, following the introduction of the Senior Managers and Certification Regime ("SMCR") in the UK in 2016, responsibilities can be extended to the direct senior managers within the company.[438] This post-crisis reform agenda aims to reduce harm to consumers and strengthen market integrity by making individuals more accountable.[439]

In this context, liability may be distributed between different officials within the company. Hence, few liability options may exist. First is product liability, where the software developer may be liable for damage caused by the AI. Next is vicarious liability which can be imposed on the person who controls the risk model and should bear responsibility (operator). The last is strict liability which applies to digital technologies used in public spaces, such as vehicles, drones, etc. and which may cause significant harm. It is worth noting that strict liability may not apply to everyone. For example, it is not suitable for stationary robots – such as surgical or industrial robots – even if they are powered by AI. This is especially true when these robots operate exclusively in a confined environment with a limited number of people at risk and those individuals are already covered by a possible contractual regulatory framework.[440] If more people are involved in the process, the person with the most control over risks should be held responsible. However, simply because this is a new technology does not mean that it is justified in to applying strict liability. The report also highlights the producer's strict liability for damage caused by defective products or components. The responsibility should apply if the product or digital model is used or if the producer still controls the updates. On the other hand, the client can be liable at some point if the breach is caused by his or her instructions and leads to money laundering activities or terrorist financing.

AI uses a large amount of data, primarily delivered by a third party. At this level, the data provider will also be liable if the information provided is misleading or leads to illegal activities. Worth knowing is that the distribution or processing of data falls under data protection law and cannot be used without a person's consent.

It would, therefore, be reasonable to establish a form of insurance or a special fund to cover any compensation for damage. A similar cover was introduced in 2018 under UK's Automated and Electric Vehicles Act 2018.[441] The insurer of the vehicle, or if it is uninsured, the owner, bears the

[438] Iain MacNeil, 'Regulating Instead of Punishing – The Senior Managers Regime in the UK' in Katalin Ligeti and Stanislaw Tosza, *White collar crime: A comparative perspective* (Hart Publishing 2019).
[439] FCA, 'Senior Managers and Certification Regime' (n 398).
[440] European Commission, 'Liability for Artificial Intelligence and Other Emerging Digital Technologies' (n 428) 40.
[441] Automated and Electric Vehicles Act 2018.

responsibility in case of third-party personal injury or property damage. Additionally, as AI develops significantly and becomes more sophisticated, problems may arise with explaining algorithms. The failure to explain will lead to a breach of contract and violate the firm's fiduciary obligations. Thus, an alternative liability scheme could be considered to close the gap in the current framework.
In summary, in case of breach of the fiduciary standards, liability falls, initially, to the firm as it is responsible for the acts of its representatives.[442]

As mentioned above, UK law currently has no separate legal framework applicable to AI. Consequently, court intervention may be required in certain instances. One such case recently served before UK Supreme Court. In *Thaler (Appellant) v Comptroller-General of Patents, Designs and Trade Marks (Respondent),*[443] the court examined whether a UK patent can be granted if an artificial intelligence (AI) system is named as the sole inventor. The background to this case relates to the two inventions created by the AI system "DABUS" (short for Device for Autonomous Bootstrapping of Unified Sentience) without human involvement. The owner and developer of the system, Stephen Thaler, used neural network technologies to build the AI system. He filed patent applications with the United Kingdom Intellectual Property Office ("UKIPO") and listed the AI system "DABUS" as the sole inventor. Shortly thereafter the applications were rejected by the UKIPO and subsequently also by the UK High Court and Court of Appeal. The basis of the refusal was that DABUS did not qualify as an inventor within the meaning of the 1977 Act (UK Patent Law). According to the Act, an inventor needs to be human and needs to be named – machines do not qualify. This aside, there is existing mechanism based on which Thaler could be entitled to patents if he was not himself the inventor. In December 2023 the UK Supreme Court agreed with the lower courts and upheld the decision that a person who is not the inventor of the inventions is not entitled to a patent. An inventor needs to be a person with a legal personality.[444] The decision of the Supreme Court, however, does not deal with the issue of whether the AI system in fact created the inventions independently. But, given the increasing role of AI, it is reasonable to predict that the question of AI-generated inventions will recur in the future. For the present, however, the government concluded that 'there should be no legal change to UK patent law and any future change would need to be at an international level'.[445] However, if the UK government wishes to position itself as an "AI superpower", there needs to be

[442] Lightbourne (n 319) 671–675.
[443] *Thaler (Appellant) v Comptroller-General of Patents, Designs and Trade Marks (Respondent)* (2023) UKSC 49.
[444] ibid.
[445] Intellectual Property Office, 'Artificial Intelligence and Intellectual Property: Copyright and Patents: Government Response to Consultation' <https://www.gov.uk/government/consultations/artificial-intelligence-and-ip-copyright-and-patents/outcome/artificial-intelligence-and-intellectual-property-copyright-and-patents-government-response-to-consultation> accessed 5 December 2023.

consultation at some point to review the patentability of inventions created independently by AI systems.

4.4 Recommendations for the AI model

There is ongoing debate around building and establishing trust for the AI system within the financial sector. Recommendations, including introducing voluntary codes of conduct and an internal audit regime for technology firms, would help foster the acceptance of AI in the system. From the regulatory perspective, the positive impact will focus on firms' outcomes and provide clarity about applying existing regulations to AI. As the Fintech industry is still growing, regulators and the financial sector should continue monitoring and adjusting AI adoption. As per the Public-Private Forum Report issued by the BoE, a firm should create a central committee to oversee its development of AI and strengthen cooperation between science and risk management teams to improve the efficiency of the AI system. Consistent training and sharing of good practices across an organisation should be a way to achieve efficient governance.[446] New technology should have procedures in place and a logging system where all failures are recorded, and access can be granted on request. Additionally, this needs to be done in accordance with existing data-protection law.

The firm and third-party providers should be obliged to have compulsory liability insurance. This will offer victims better protection and ensure better access to compensation. The point to note is that it is doubtful that retail investors will have an opportunity to negotiate contractual terms. Under the company terms, fiduciary duties may already be altered or restricted.
By looking at the whole concept of AI from a legal, technological, and human perspective, the cost-benefit analysis needs to be considered. If the current legal structure in the form of tort law, claims processes, or regulatory framework, is adopted and remains as is, the positive impact will be that the current law will be used and the common law will allow for a case-by-case resolution. On the other hand, more advanced technology could give rise to legal consequences that could impact businesses and their development. However, establishing a new legal system for AI does not bring benefits alone; untested rules or new situations could result in an even more chaotic approach.[447] Another option is to strengthen the internal governance of financial participants and closely watch the constantly developing field of AI.

[446] The Bank of England, 'The AI Public-Private Forum: Final Report' (n 373) 38.
[447] Iria Giuffrida, 'Liability for AI Decision-Making: Some Legal and Ethical Considerations' (2019) 88 Fordham Law Review 439.

4.5 Conclusion

Artificial intelligence (AI) is no longer a "new world" in the financial sector. From its onset, AI has transformed the financial services industry, offering a multitude of benefits. It improves efficiency by automating tasks and decision-making processes while reducing manual intervention. AI plays a pivotal role in fraud detection and contributes to cost reduction by streamlining processes. For personalised services such as robo-advice, AI helps analyse and forecast market trends and customer behaviour and find the right service for consumers. AI techniques and algorithms used in robo-advice services facilitate the possibility of offering low-cost advice to the mass market. Based on the information collected from consumers and analysed data by AI, automated financial advice can be even more customised with a risk profile taken into consideration. Due to its automation, it is available for consumers at all times as it constantly monitors the market situation and adjusts the assets, when necessary, to mitigate risks.

With an increasing focus on digitalisation, AI is moving to the next level in financial services and fast becoming a key focus in businesses. As we saw above, numerous benefits for companies and their consumers flow from AI. However, it also presents several challenges. One of these is data security and privacy concerns that arise due to the sensitive nature of financial information shared. This demands robust cybersecurity measures. There is also an ethical challenge linked to algorithmic bias and lack of transparency in explaining decisions made by AI algorithms. The most important challenge here is keeping up with the regulatory landscape. As AI becomes ever more popular, financial institutions need to comply with existing and evolving regulations.

For the present, the UK has elected not to introduce separate AI regulation but rather to monitor its development closely. However, discussion on AI governance principles is underway, notably on the five principles for responsible stewardship of trustworthy AI.[448] These are largely shared across government agencies and organisations and focus on fairness, sustainability, safety, accountability, and transparency. The Government runs a number of initiatives[449] together with the private sector, aimed at better understanding new technology and the implementation of AI without harming society and the economy. The UK regulatory landscape has an extensive structure and the introduction of new rules could lead to limitation or restriction of innovation if review is inappropriate. In its bid to be an AI superpower, the UK has elected to go with the technology-neutral approach to limit risk. This does not mean that AI can be freely introduced by businesses at each level. Companies still need

[448] Department for Science, Innovation & Technology, 'A Pro-Innovation Approach to AI Regulation' (n 384) 46.
[449] Such as: Competition and Markets Authority, Information Commissioner's Office, Ofcom and FCA (n 374); The Bank of England, 'The AI Public-Private Forum: Final Report' (n 373).

to consider existing regulations and comply with regulatory requirements and guidance provided by supervisory authorities. For example, the ICO provided guidance[450] on how to comply with data protection law for firms using new technology. One of the main focuses in the AI sphere is investor protection as the service covers both investment and execution. Due to new functionality, AI may offer a great opportunity, but subject to security for investors. Here, the government closely monitors companies offering AI services. The latest introduction of the "consumer duty" by the FCA is a good example of this. Higher standards and requirements always to prioritise the customer's needs are the response to the complexity of the financial market and the difficulties that consumers experience when making financial decisions.

The last point discussed in this chapter is the legal aspect of AI. As we saw, the debate on how AI should be treated continues. If tasks performed by AI are easy to understand and explain, it can be said that AI is reliable. However, problems start when a human cannot predict the AI's actions or cannot explain them – and "black box" problems do occur. Innovation always brings with it a challenge in adopting it in the regulatory environment. As AI is an integral part of robo-advice services, the next chapter focuses specifically on robo-advice services. Characteristics and types of service offered in the markets are presented. AI and regulatory risks are highlighted better to understand the challenges that robo-advice services are facing and show the connection between them. This allows for a more meaningful picture of robo-advice services in the UK.

[450] ICO (n 377).

5 Chapter V: Robo-Advice

5.1 Introduction

'Banking is necessary, Banks are not' is a famous Bill Gates quote highlighting the increasing role of digitalisation. The initial wave of digitalisation had a significant impact on everyday life and changed the business model perspective. The second wave of digitalisation has further redirected attention toward automated services based on algorithms. Consequently, digital advice services (robo-advisors) started to gain in popularity. They represent the switch from the traditional human-to-human advisory process to the human-to-computer process.[451] Robo-advice is based on new technology and procedures, which have changed how the financial decision-making process is delivered. From this perspective it can be seen as an essential part of the broader Fintech revolution.

Further, the benefits and challenges are considered. As the overreaching regulatory aspect of AI was presented in Chapter four, Chapter five opens with a more detailed explanation of the product, including its characteristics and the types of robo-advice services currently in use.

5.2 What are robo-advisors?

The term "robo-advisor" was coined in 2002 as a title in the *Financial Planning* magazine.[452] Ever since, robo advisors have gained in popularity and interest not only from firms but also from society at large. This approach is linked to the increasing role of technology, mainly AI, which is fast becoming the main driver in the context of robo-advice.

Robo advisors have developed significantly in the past decade. The first business model based on robo-advice emerged in 2002 with the establishment of "Betterment". In the US the revolution started in 2010 with the UK following a year later. The real boom came in 2015, causing regulatory rumours and an increase in financial services offered to everyone by start-ups and financial institutions. It is worth noting that the new technological services were initially created for start-up firms and not directly for retail customers.

The new product slowly started to revolutionise the market and was praised by many industry professionals. As of November 2023, the robo-advisor assets under management ("AUM") stood at

[451] Dominik Jung and others, 'Robo-Advisory: Digitalization and Automation of Financial Advisory' (2018) 60 Business & Information Systems Engineering 81.

[452] Paul Resnik and Stuart Erskine, 'The Robo Revolution. Robo Advice Market Commentary and Analysis' (FinaMetrica 2015) <https://www.ivey.uwo.ca/media/3341217/finametrica-2015-robo-advice-report-us.pdf> accessed 1 October 2022.

approximately $2.7 trillion worldwide and is predicted to increase to $ 4.6 trillion by the end of December 2027.[453]

In concise terms, robo-advisors are automated online portfolio managers who deliver personalised advice to retail customers. In its standard form, robo-advice is described as an automated process with little or no human intervention delivered online by self-service. It uses algorithms to choose portfolios for clients based on risk tolerance. In the US, the SEC defined robo-advisors as 'typically registered investment advisers, use innovative technologies to provide discretionary asset management services to their clients through online algorithmic-based programs'.[454] In the UK, streamlined advice service ("SAS") could be recognised as a predecessor of robo-advice. SAS was the older concept of basic advice on stakeholder products which was intended to lower costs and improve access to advice for a limited product range. The concept remains the same, with the aim of addressing the straightforward needs of consumers and is typically an automated, process-driven advice service. In the FCA paper, 'streamlined advice services might include automated, "robo advice" services or more traditional face to face or telephone-based models'.[455]

According to Resnik, 'Robo-advisors do not do anything new that humans are not doing already. But robo-advisors do the work in the blink of an eye, to a consistent standard and at low cost, and their processes are easily scalable'.[456] The process behind robo-advisors (decision-making logic) is not always created from scratch. Many modules from the financial software used in traditional advice still apply with minor improvement or modification to the needs of a new system. However, the principal difference is a new interface built to be used by retail investors as a self-service.

Robo-advisors are also recognised as a disruptive innovation. Sironi provides several reasons to support this from offering service at low cost for a niche segment and younger investors with limited or lack of financial literacy who, most often, struggle to afford human advice. The term "disruptive innovation" was introduced in 1997 by Clayton Christensen and described a business where a company with fewer resources can challenge its competitors successfully. As the incumbent business focuses largely on improving the product and service for the most profitable clients, they forget about other segments of their business. Here is a place for disruptive innovation where entrants target the

[453] Statista, 'Robo-Advisors - Worldwide' <https://www.statista.com/outlook/fmo/wealth-management/digital-investment/robo-advisors/worldwide> accessed 24 November 2023.
[454] SEC, 'Robo-Advisers. IM Guidance Update' <https://www.sec.gov/investment/im-guidance-2017-02.pdf> accessed 1 October 2022.
[455] FCA, 'FG17/8: Streamlined Advice and Related Consolidated Guidance' <https://www.fca.org.uk/publication/finalised-guidance/fg-17-08.pdf> accessed 1 October 2022.
[456] Resnik and Erskine (n 452) 10.

overlooked segments at the bottom of the market and deliver the more suitable functionality at a lower cost while making the service more accessible. Slowly they are moving upmarket, challenging or even displacing current competitors.[457]

In 2018 Beketov and others[458] analysed 219 existing robo-advisors worldwide and found that the main framework used is based on Markowitz's modern portfolio theory. The approach to portfolio selection is called the mean-variance model and was introduced in 1952 by Harry Markowitz. The paper 'Portfolio Selection' represents the first mathematical formalisation of the idea of diversification of investment. The main insight from the theory was that investors should consider not only the expected return from an investment but also the risks. The concept of portfolio optimisation is based on the diversification of assets and its allocation accordingly to the risks. Modern portfolio theory established the groundwork for effective portfolio management and evolved from Markowitz's ideas above.[459] The trend focuses on improving the framework rather than applying an entirely new approach. The optimal portfolio is formed from an investable range using predetermined criteria linked to minimal personal information such as investment objectives and preferred risk tolerance. Nevertheless, the potential integration of AI remains feasible and is applied. AI brings a lot of benefits which help optimise portfolios. It enables investors to find the best fit for their needs taking into consideration risk tolerance and time horizon. Hence, AI is used in conjunction with modern portfolio theory.

Robo advice in a pure form is online automated advice that uses automated processes which can range from simple algorithms utilising minimal client information, to complex systems based on AI and big data. The objective is to provide recommendations to retail customers on allocating funds across various asset types. The robo-advice service is built on an online platform, accessible via website or mobile, where investment advice can be provided to retail investors at a cost lower than traditional advice. The software is driven purely by algorithms and human intervention is limited to the minimum. This could be linked with the phrase 'software eats the world' presented by Andreessen and associated with changing the economy influenced by software companies.[460]

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[457] Clayton M Christensen and others, 'Disruptive Innovation: An Intellectual History and Directions for Future Research' (2018) 55 Journal of Management Studies 1043.
[458] Mikhail Beketov, Kevin Lehmann and Manuel Wittke, 'Robo Advisors: Quantitative Methods inside the Robots' (2018) 19 Journal of Asset Management 363.
[459] Harry Markowitz, 'Portfolio Selection' (1952) 7 The Journal of Finance 77.
[460] Marc Andreessen, 'Why Software Is Eating the World?' *The Wall Street Journal* (August 2011) <https://www.wsj.com/articles/SB10001424053111903480904576512250915629460> accessed 1 September 2022.

The journey starts with choosing the right robo-advisory service offered in the current market. Most often it will be recommended by friends or family or picked up based on the proposition shared by other people or purely based on the preferences, offers, and services they can provide. Firstly, the customer needs to create a personal profile and fill out the online questionnaires with necessary information such as age, occupation, income, individual situation, expectations, financial goal, and risk tolerance. The questionnaire is a regulatory requirement under the MiFID "suitability assessment" rule in Europe. Similarly, it is mandatory under SEC guidelines in the US.[461] After the collection of information, the AI-based system defines the investment universe and selects the model portfolio. The decision is assigned to one of the offerings from the company's bucket of possible investments. The portfolio is created to be tailor-made to the client's investment goals. However, the limitation of robo-advice exists as, more often, recommendations proposed are based solely on a few strategies proposed by the company. The most widely-offered strategies are based on passive indexing. One of them is the exchange-traded funds (ETF) and mutual funds that track the market benchmarks. In addition, robo-advisors often do not have a comprehensive overview of an investor's financial situation since savings beyond the robo-platform are seldom considered.

Algorithms can also help in detecting deviations from specified profiles and the portfolio might be automatically rebalanced. The portfolio can also be rebalanced to reduce the risks or when investors change their risk tolerance or investment goals. Some robo-services offer a "tax harvesting" technique which allows the sale of unprofitable assets and their replacement with assets with similar risk. This will lower the capital gain and decrease taxable income without affecting the portfolio. In addition to managing the portfolio allocation, the robot can present relevant statistics to the client, including anticipated annual return and volatility. This is frequently achieved through historical performance analysis and "Monte Carlo" simulations which project potential future outcomes based on portfolio allocation.[462]

Digital services like robo-advisors are also adjusting, led by technological progress and client demands. An expanding area in the robo-advice world is investing in accordance with "Environmental, Social, and Governance" ("ESG") criteria. ESG investing aims to generate competitive long-term financial returns while simultaneously making a positive impact on society. This is possible by investing in ESG ETFs that replicate indexes with ESG ranking. Interest in sustainable investment has grown recently among investors, and with the help of robo-advisors it can

[461] SEC, 'Commission Interpretation Regarding Standard of Conduct for Investment Advisers' <https://www.sec.gov/files/rules/interp/2019/ia-5248.pdf> accessed 11 November 2023.
[462] Milo Bianchi and Marie Briere, 'Robo-Advising: Less AI and More XAI?' [2021] SSRN Electronic Journal <https://www.ssrn.com/abstract=3825110> accessed 19 June 2022.

be effected simply and conveniently. Sustainable investing is offered as an alternative to conventional investment products, and robo-advisor services play a significant role in promoting sustainable investment products, especially for retail clients.[463] ESG investing is also visible among scholars and financial industry stakeholders.[464] Responsible investing, however, might create several challenges for robo-advisors. First, the advisors may run into difficulty in identifying liquid ETFs suitable for ESG-aware portfolios. Second, due to diverse investor preferences in responsible investing, robo-advisors need to offer new levels of customisation. Robo-advisors offer various strategies to tackle diverse investor preferences. For example, portfolios that aim to balance environmental, social, and governance factors. However, focusing on a specific factor becomes challenging without additional input from investors. To meet this challenge, certain robo-advisors offer greater flexibility in constructing ESG portfolios.[465]

In 2021 the UK government unveiled an ambitious plan to make the UK the best place in the world for green and sustainable investment. The long-term strategy is designed to guarantee that investors and consumers have the necessary information to make well-informed decisions about capital allocation which aligns with their sustainability preferences or objectives.[466] Further, in November 2023 the FCA issued final rules and guidance to protect investors and improve trust and transparency in the market for sustainable investment products that are applicable to all regulated firms. The aim of the new policy, - Sustainability Disclosure Requirements ("SDR"), and investment labels are to ensure that every financial product that is called "sustainable" is true to the claim and has sufficient evidence to back it up. The new rules were introduced to provide consumers with better, more accessible information to overcome information asymmetries. As stated by the FCA, 'we are putting in place a simple, easy-to-understand regime so investors can judge whether funds meet their investment needs – this is a crucial step for consumer protection as sustainable investment grows in

[463] Ida Ayu Agung Faradynawati and Inga-Lill Söderberg, 'Sustainable Investment Preferences among Robo-Advisor Clients' (2022) 14 Sustainability 2.
[464] McKinsey&Company, 'From "Why" to "Why Not": Sustainable Investing as the New Normal' (2017) <https://www.mckinsey.com/~/media/McKinsey/Industries/Private%20Equity%20and%20Principal%20Investors/Our%20Insights/From%20why%20to%20why%20not%20Sustainable%20investing%20as%20the%20new%20normal/From-why-to-why-not-Sustainable-investing-as-the-new-normal.ashx> accessed 4 December 2023.
[465] Petter Kolm and Adam Grealish (eds), 'Robo-Advisory: From Investing Principles and Algorithms to Future Developments' in Agostino Capponi and Charles-Albert Lehalle, *Machine Learning and Data Sciences for Financial Markets* (1st edn, Cambridge University Press 2023) <https://doi.org/10.1017/9781009028943.005> accessed 19 December 2023.
[466] HM Government, 'Greening Finance: A Roadmap to Sustainable Investing' <https://assets.publishing.service.gov.uk/media/61890e64d3bf7f56077ce865/CCS0821102722-006_Green_Finance_Paper_2021_v6_Web_Accessible.pdf> accessed 19 December 2023.

popularity'.[467] This statement is the confirmation of UK retail investors, where, based on the survey[468], between 74% and 81% of consumers would like to invest in a way that protects the environment and has a positive social impact. The FCA follows the same objectives as the UK government, and

> 'by improving trust in the sustainable investment market, the UK will be able to maintain its position at the forefront of sustainable finance and capture the benefits of being a leading international centre of investment'.[469]

Together with new possibilities created by the online advisors, came criticism of regulatory issues and the quality of the advice offered. Benefits and challenges are discussed below.

5.3 What types of robo-advisor do we know?

The digital sector of the financial market, with its principal focus on online financial advice, has increased significantly in recent years. Following the technological revolution, D'Acunto and Rossi distinguish between short-term active trading where digital tools and services are used, and long-term passive investments where the AI robo-advisor model performs the majority of services for the clients and executes investment decisions.[470] Before presenting different forms of robo-advice, it is worth focusing on common features of robo-advising systems which will help in classifying robo-advisor services. These include portfolio personalisation, client involvement, client discretion, and human interaction. To start with portfolio personalisation; the aim of robo-advice is to offer financial advice tailored to the client's needs. However, a common criticism is that information provided via online questionnaires can limit the advice decision and result in a lack of customisation. Further, client involvement depends on the client's ability to participate in the investment strategy and approve every decision. In addition, there is also the possibility to override the robo-advice recommendation which allows the client a discretion to reduce the portfolio risk. Applied to human interaction, this feature where some degree of human interaction is allowed, depends on the operational model of robo-advice.

The features listed above will help in distinguishing different types of robo-advisor. There are three different types of robo-advisor business models in the current system. First is the "fully automated

[467] FCA, 'Sustainability Disclosure and Labelling Regime Confirmed by the FCA' (November 2023) <https://www.fca.org.uk/news/press-releases/sustainability-disclosure-and-labelling-regime-confirmed-fca> accessed 12 December 2023.
[468] FCA, 'Financial Lives 2022 Survey' (July 2023) <https://www.fca.org.uk/financial-lives/financial-lives-2022-survey> accessed 12 December 2023.
[469] FCA, 'Sustainability Disclosure and Labelling Regime Confirmed by the FCA' (n 467).
[470] Francesco D'Acunto and Alberto G Rossi, 'Robo-Advising' in Raghavendra Rau, Robert Wardrop and Luigi Zingales (eds), *The Palgrave Handbook of Technological Finance* (Springer International Publishing 2021) <https://link.springer.com/10.1007/978-3-030-65117-6_26> accessed 19 June 2023.

model". As the name suggests it operates online without any human intervention and is based purely on AI and new advanced software. It is also termed a "pure robo-advisor" as is based on input and preferences from the client and then makes an investment decision on that client's behalf. The service offered combines financial advice, online brokerage, and portfolio management. If there is a contractual relationship, the model monitors and fully manages the client's investments, including rebalancing assets or sending updates/warnings to the clients.

In this model, the company generally charges an all-inclusive fee, which includes custody services, transaction costs, and rebalancing. On top of this, an additional management fee for mutual funds or exchange-traded funds is charged. Most often, this form of robo-advice also needs several financial providers to ensure that the business will be running – eg, a third-party custodian or brokerage service to facilitate transactions.

It is worth noting that there were earlier versions of a fully automated model in a more generic form which worked more like an online broker. The main focus was on facilitating the purchase or sale of funds or stocks on the platform. It reflected the "execution only" model with limited adviser duties. In this form, legal duties were restricted as investment decisions were made by an investor alone and not by the financial advisor.

The second most popular type of robo-advisory service is the "semi-automated (hybrid) model". Digital advice is delivered with the involvement of humans and is based on providing customer service elements to the clients. It can exist at any level of the advisory process. The most popular form of contact is via live chat, e-mail, or a customer care line. There is also the possibility of obtaining investment advice; however, at this point it will be classified as traditional and not robo-advice. Human involvement could also be visible behind the scenes, internally, by overlooking or training the algorithms or machine learning. In essence, the robo-advisor is the key, while human interaction provides only additional services to the clients. In light of the higher level of human intervention, the hybrid advice model charges higher fees and sometimes requires higher initial investment than the pure advice model.[471]

Next to the hybrid model, the "blended model"[472], which splits the tasks equally between robo- and human advisors to achieve the expected result should be highlighted. Robo-advisors focus on

[471] Michael Puhle, 'The Fintech Revolution: A Closer Look at Robo-Advisors' (2016) 3 Economy and Finance <https://bankszovetseg.hu/Public/gep/2016/GP4a%20256-271%20Puhleuj.pdf> accessed 1 October 2022.
[472] Darren Tedesco, 'I, Robo-Adviser? Creating the Blended Adviser Experience' (*Journal of Financial Planning*) <https://www.financialplanningassociation.org/article/journal/JAN15-i-robo-adviser-creating-blended-adviser-experience> accessed 12 December 2023.

collecting, analysing, and executing investment advice, while human advisors oversee the strategy and financial planning.

In light of the above different models, personal contact with an advisor remains an important point for the majority of private banking clients with higher amounts to invest.[473] Still, the hybrid model is applicable here as all analysis for simple services can be performed using the automated services. But, where more complicated advice with a significant amount invested, personal service will still be desired. In a joint discussion paper by Deloitte and Avaloq, emerging models for investment advice were presented with a focus on customer group-segmentation based on the amount to be invested. Fully automated robo-advisory models, with a focus on high automation, target largely mass affluent investors. Alongside is the hybrid advisory model, which is a blend of automation and human interaction with its principal focus on mass affluent to high-net-worth investors. The next level of more personalised advice with an enhancement level of technology is reserved for ultra-high net individuals who demand more personalised relationships.[474]

5.4 Benefits and challenges of robo-advisors

5.4.1 Benefits

In the current financial market there is a constant need to improve consumers' access to financial services. Robo-advisors started to respond to this problem, offering automated processing of transactions and streamlined communication.

Robo-advisors have already been called to form part of the Fintech Revolution. They have changed how advice can be delivered, including opening more possibilities for the mass market. For the first time, small investors were not left behind. Robo-advisors allow individuals with limited capital to access professional investment management services – they enable a broader range of people to participate in investing. The ongoing problem in the financial system appears to be high fees for traditional advice. By implementing new technology, transaction costs decrease significantly allowing smaller investors to participate in investing. In the current UK market robo-advisors such as

[473] Teodoro D Cocca, 'Potential and Limitations of Virtual Advice in Wealth Management' (2016) 44 Journal of Financial Transformation <https://www.jku.at/fileadmin/gruppen/103/Asset_Management/Sonstiges/Kolumnen__Beitraege_und_Artikel/JournalofFinancialTransformation_PotentialandLimitationsofVirtualAdviceinWealthManagement.pdf> accessed 14 December 2023.

[474] Deloitte & Avaloq, 'Emerging Models of Digital Wealth Advisory' (2017) <https://www.deloitte.com/content/dam/Deloitte/lu/Documents/financial-services/lu-emerging-models-digital-wealth-advisory-04102017.pdf> accessed 12 December 2023.

Nutmeg, Moneyfarm, or Wealthify do not require even a minimum investment.[475] On top of that, they also charge lower fees than human advisors. This is possible as robo-advice services invest through ETFs which have the advantage of a low-cost structure. Further, robo-advisors' fee structure could be regressive in that it correlates inversely to the amount invested (higher investments result in lower fees). In this situation, the high net-worth investors are the next potential targets, as they will be interested in increasing profits and reducing fees while maintaining the same quality of service.
Another meaningful advantage of digital services is accessibility and investment experience. Living in a digital age where access to the internet is virtually universal, creates even bigger investment opportunities for everyone. Easy-to-follow design and transparency on the platform makes investing still more accessible for everyone.

Robo-advisors offer numerous benefits for the financial sector by leveraging AI and contemporary technology which improves access to finance for individuals globally. This is aligned with the concept of financial inclusion in terms of which 'individuals, regardless of their background or income, have access to useful and affordable financial products and services. This includes products and services, transactions and payment systems, and the use of financial technology'.[476] The main aim is to facilitate access for those currently excluded from the system.

In this regard, robo-advisors aim to close the investment advice gap. As stated in the FAMR Report, the financial advice gap refers to a 'situation in which consumers are unable to get advice and guidance on a need they have at a price they are willing to pay'.[477] It is worth noting that the price is not the only factor causing the gap. People with lower incomes, less money, and limited financial knowledge will be unable to invest due to high advisory fees and restricted access. Another advantage of using robo-advisors is the threshold-based rebalancing offered by the providers. This is all done automatically for the client's benefit to ensure that its portfolio will still reflect its financial goals. Portfolio optimisation in the case of robo-advisors is based on modern portfolio theory drawn from the Markowitz approach, where assets are allocated in accordance with the risk level. In traditional advice the human advisor usually provides rebalance at intervals due to inherent limitations arising from the number of clients, time, and analysis that need to be provided.

[475] Examples are: MoneyFram <https://www.moneyfarm.com/uk/> accessed 15 December 2023; Wealthify <https://www.wealthify.com> accessed 15 December 2023; Nutmeg <https://www.nutmeg.com> accessed 15 December 2023.
[476] HM Treasury and Department for Work and Pensions, 'Financial Inclusion Report 2018-19' (2019) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/789070/financial_inclusion_report_2018-19_web.pdf> accessed 17 April 2022.
[477] HM Treasury and FCA, 'Financial Advice Market Review. Final Report' (2016) <https://www.fca.org.uk/publication/corporate/famr-final-report.pdf> accessed 16 April 2022.

Tax-loss harvesting is another aspect which is offered to clients, where a portfolio with securities carrying losses is sold at a strategic point and replaced with a similar one to preserve the assets allocation.[478] This creates value for long-term investors, compared to individual investments as tax issues can be handled automatically without using expensive personal tax advisors. Digital service also delivers a less emotional decision-making process. As all recommendations are based on algorithms, there is no emotional influence that may impact the financial decision provided by the human advisors. In the case of traditional investors who have their own portfolios, when the market turns down some of them may panic and sell their assets without reason. In the automated world, algorithms can take care of and prevent "wrong" decisions while maintaining an appropriate level of risk.

There is also no conflict of interest in robo-advice service as the "representation level" is reduced when compared with human advisors. A new business also offers self-service, which is readily available as an application on the mobile device. As a result, it is widely available and opens a door for investment for everyone, even those with low income.

In summary, robo-advisors have started to fill the advisory gap by offering consumers affordable advice. Based on AI automated tools, robo-advice gives potential investors greater freedom of choice. As this is an online advisor, human intervention will range from minimal to moderate depending on the model chosen.

5.4.2 Challenges

Despite revolutionising the financial industry and bringing a wide range of benefits, robo-advisor services are not without constraints. Resnik[479], has highlighted six challenges that robo-advisors need to overcome if they want to grow into a profitable business. First, new robo-advice companies need to think about changing perceptions of financial advice. Increasing numbers of financial scandals and frauds by financial institutions over the past decades are not encouraging people again to put their trust in the entire financial market framework. Instead, they prefer to invest their money in, for example, real estate which is at least something tangible which they can see. The second challenge is very closely linked to the first as it is based on establishing trust. As was stated by Rousseau and others, trust is defined as 'a psychological state comprising the intention to accept vulnerability based

[478] The practice is more applicable and used by US investors, than in the UK. Sold securities cannot be replaced with the same or the equivalent security within a short period of time, as this would be treated as "wash sale".
[479] Resnik and Erskine (n 452) 8.

upon positive expectations of the intentions or behaviours of another'.[480] Companies need to work hard to establish trust and encourage people to trust in the code and the new system based on algorithms. The third challenge relates to the advice and guidance gap. This is mostly associated with the amount of money that people have to invest and the high fees associated with the service provided by human advisors. In the UK, the traditional form of advice was, in the main, available largely to the middle class or the "mass affluent". At this stage, robo-advisors appear to be the best solution for the advice gap as they can offer investment recommendations at a low cost. The upcoming challenge lies in economic influences driven by the affluent economic segment. Companies are directing increased attention and marketing efforts at the affluent investor. A robo-advisory business, however, can capture the interest of less affluent clients by offering budgeting tools and cash-flow forecasting. Moreover, a significant challenge is linked to the cost of acquiring clients. In the UK the average cost of advice is around £150.[481] The substantial cost is a key factor contributing to the slow growth of companies. The robo-business requires ongoing improvement if it is to attract new clients and retain existing ones. Survival is contingent on acquiring clients and their associated fees. Additionally, the expenses related to marketing and promotions can be particularly high, with no assurance of success. The main field of marketing is the online area, where firms are using email marketing, search engine optimisation (SEO), and customised advertising.

The final, equally important, challenge is behavioural bias. The robo-advice business serves as a notable illustration. Customised information, forecasts, and motivational calculations delivered through reminders, messages, texts, emails, or mobile pop-ups aligned with the client's future goals can outperform the traditional approach of a financial advisor sending a generic template every six months. The volume of information has the potential to inspire individuals to contemplate their financial future and allocate savings for the years ahead.[482] Apart from that, other challenges in the robo-advice business involve client onboarding and risk profiling. The key aspect in the financial advice segment is to know your customers. In the digital world of fast and accessible advice, the question arose around the client onboarding area. Most robo-advice offers digital service in the simplest and most convenient way as a key condition.

The robo-advisory service may face limitations, particularly as regards information gathered through questionnaires. Critics argue that relying solely on electronic questionnaire-based data collection is inadequate and fails to offer a comprehensive understanding of the client's overall situation and

[480] Denise M Rousseau and others, 'Not So Different After All: A Cross-Discipline View Of Trust' (1998) 23 Academy of Management Review 393.
[481] Money Helper, 'How Much Does a Financial Adviser Charge?' <https://www.moneyhelper.org.uk/en/getting-help-and-advice/financial-advisers/guide-to-financial-adviser-fees#> accessed 1 October 2023.
[482] Resnik and Erskine (n 452) 13–17.

requirements. Crucial details, such as assets beyond the client's account or shifts in family situation, may be overlooked, potentially affecting investment decisions and impacting the client's overall investment strategy. Poor assessment of risk tolerance and lack of personalisation may lead to the provision of the "wrong" advice. Another common feature in fully automated robo-advice services is a lack of personal contact. On one hand this is beneficial as it lowers the cost and allows more people to use the service; on the other, despite the popularity of digital advice, people still look for in-person consultants when seeking further clarification. For example, in wealth management, especially for high-net-worth clients, personal contact is important as it is often easier to settle and facilitate issues face-to-face. In the digital world you are generally left on your own – although support is always available (mostly in the form of a chatbot). The competitive environment is another aspect that needs to be highlighted. The main competition appears in domestic markets, but as soon as barriers to entry into a foreign market change, the international competition will start. The most impacted are stand-alone robo-advisors as they need to establish a customer base and become profitable compared to large companies that already have customers, as their primary business is focused on traditional advice.[483]

Another aspect to emphasise is the response of providers to crisis situations. In 2016, immediately following the UK's decision to exit the European Union, the robo-advisory service, which was in its infancy, encountered market turbulence. One of the companies, Betterment, felt the impact in the aftermath of "Brexit" and halted trading for three hours. The company justified its decision, citing the need to safeguard clients against making wrong decisions that could result in poor execution and high transaction costs. However, there was little communication surrounding the entire situation which left many clients unaware that transactions initiated in the morning only be executed later. Clients expressed frustration and were unconvinced by Betterment's actions. This incident highlights additional limitations in automated systems which could lead to the loss of clients, erode market confidence, and generate further confusion should a similar situation again arise.[484]

Another constraint that could limit investing with robo-advisors is the tendency of companies to prioritise their profits over the best interests of their clients. An illustration of this behaviour can be found in Schwab Intelligent Portfolios (SIP) which was introduced in 2015. The portfolio included internally generated ETFs alongside a cash allocation programme. It was observed that SIP's brochure revealed an allocation of between seven and thirty per cent to cash invested in Schwab retail banking

[483] Dominik Jung, Florian Glaser and Willi Köpplin, 'Robo-Advisory: Opportunities and Risks for the Future of Financial Advisory' in Volker Nissen (ed), *Advances in Consulting Research* (Springer International Publishing 2019) <https://link.springer.com/10.1007/978-3-319-95999-3_20> accessed 22 June 2023.
[484] Bret E Strzelczyk, 'Rise of the Machines: The Legal Implications for Investor Protection with the Rise of Robo-Advisors' (2017) 16 DePaul Business and Commercial Law Journal 65.

services. This had a negative impact on the client's earnings, as they missed out on potential returns that could have been gained had the funds rather been allocated to assets. The company experienced a backlash following the disclosure and needed to change the approach. The situation clearly shows that companies can use and promote their affiliate products and services and prefer them over clients' needs.[485] Other examples could be the selection of brokers. Fein found that certain companies choose their own brokers who charged clients higher rates instead of finding more favourable deals for them.[486]

Despite significantly low fees offered by robo-advisors, digital services still need to survive in a highly competitive market. Fein has shown that some robo-advisors reserve the right to change the fees at their discretion. Attracting new customers initially and subsequently raising fees once a substantial customer base has been established, is a common strategy aimed at boosting profits.[487]

5.5 AI risks in the robo-advice area

The main characteristic of robo-advice is the digital system used to navigate the best way of investing for consumers. The digital medium uses algorithms to select relevant products based on the information contained in a decision tree. In the previous chapter many AI challenges were highlighted. Now, these risks need to be presented from the robo-advisors' perspective. The main regulatory risks are later categorised at different levels to offer a more comprehensive overview.

5.5.1 Algorithmic risk

Robo-advisors as a digital service creates many advantages including allowing people to invest even a small amount. With a digital, automated, and fast service, the investment can be accessed by the mass market. Robo-advisor services based on AI applications have potential in financial services. Despite the many benefits that robo-advice services offer, digital advice is not without risk,[488] notably the algorithmic risks. Most robo-advice services use AI-based software or deep-learning technology, which adds value to the operational aspect of the service. Therefore, advice can be provided without

[485] Megan Ji, 'Are Robots Good Fiduciaries? Regulating Robo-Advisors Under the Investment Advisers Act of 1940' [2017] SSRN Electronic Journal 1574.
[486] Melanie L Fein, 'Robo-Advisors: A Closer Look' [2015] SSRN Electronic Journal 15.
[487] ibid 12–15.
[488] Prince Sarpong, 'Robo-Advisors: Exploring and Leveraging the Competition' [2020] Centre for Financial Planning Studies <https://www.ssrn.com/abstract=3528174> accessed 22 June 2023.

delay and on an automated basis. It surpasses the human level in performing tasks by having the ability to organise vast amounts of data and provide informed estimates and predictions.

However, the major risk lies in the transparency and clarity of the decision-making process. This is termed the "black box" problem and means that once the code is written, the developer does not interfere with the algorithm. This applies to new-style AI applications based mostly on deep neural networks. The use of this infrastructure creates a challenge not only for a firm but also for regulators. To supervise the new system properly and establish its safety for public use, underlying rules and data need to be available. This is not always the case. With greater involvement in advanced and complex technology, developers struggle to understand the rationale behind the decisions that have been made. The reason behind the decision is unclear and no meaningful analysis can be undertaken. Moreover, it is not possible to judge the quality of advice and whether it delivered positive financial results – this, only time can tell. Relying on algorithms poses a challenge for financial regulators monitoring the provision of financial advice. The delayed identification of issues could mean that financial losses to the public occur before problems with advice are recognised, making it a less reassuring method for effective oversight.[489] Smith concludes that human intelligence is very different from computer intelligence, an example of which is trading algorithms. They are very efficient from the statistical point of view but lack the ability to comprehend the world in a meaningful sense. Consequently, they carry inherent risks as they might interpret coincidental patterns as consequential without the capacity for nuanced judgement.[490]

Looking from the regulatory perspective, there is no distinction between the provision of digital and human financial advice. As the UK follows a technology-neutral approach the same obligations apply to both automated and traditional forms of advice. Despite the lack of specific regulation, external regulations such as the Data Protection Act[491] apply to digital advice. Under general data-protection legislation, everyone has a "right to an explanation". The ICO provided guidance on the two forms of explanation that should be provided. First is the process-based explanation – at this stage, providing information on how governance was implemented throughout the design and deployment phases of the project will be needed to show best practices and good governance. Second is an outcome-based

[489] Hui Xian Chia, 'In Machines We Trust: Are Robo-Advisers More Trustworthy Than Human Financial Advisers?' (2019) 1 Law, Technology and Humans 129.
[490] Gary Smith, 'Be Wary of Black-Box Trading Algorithms' (2019) 28 The Journal of Investing 7.
[491] Data Protection Act 2018.– The UK General Data Protection Regulation. Before leaving the EU, the UK transposed the GDPR into UK law through the Data Protection Act 2018. This became the UK GDPR on 1 January 2021 when the UK formally exited the EU.

explanation which offers the users clarity on the results of specific decisions.[492] With the application of the technology-neutral approach:

> 'the UK government believes that transparency of algorithms is important, but for the development of AI, an overemphasis on transparency may be both a deterrent and, in some cases, such as deep learning, prohibitively difficult. Such considerations need to be balanced against the positive impacts use of AI brings'.[493]

At this point, the algorithm risk still exists, but even though individual decisions cannot be explained on some level, it does not mean that they cannot be controlled. The process and outcome-based explanation method proposed by ICO confirms this. Certain commentators argue against the necessity of opening a "black box" and propose the concept of unconditional counterfactuals as a way of giving meaningful explanations to the public of how AI makes decisions. This is based on disclosing a deep, neural, network agent's "personality traits" as an alternative method for resolving the explicability issue.[494]

5.5.2 Bias risk

Alongside and closely related to the algorithmic risk is the bias risk in robo-advisory services. AI is the main tool used in robo-service. Hence, there are concerns that AI can be used in ways that lead to inequality. This creates a significant risk as, if it occurs, it may have an adverse impact on clients who are all reliant on recommendations generated by algorithms. The data quality used for training may lack representation of the target population, especially if the sample size is inadequate. It should also be noted that in most cases historical data is used which does not predict the future accurately and may miss important factors. New biases can also arise in the working model, or existing biases might be enriched due to feedback from earlier decisions. Furthermore, there is uncertainty as to new events that might occur where past data cannot provide guidance. There is, therefore, no way to measure the algorithm's behaviour and the bias it may create. The core issue here is that AI code is non-ethical – algorithms neither "feel" nor have "values". They do not review or reflect on its performance as normal humans do. Ongoing monitoring, review, and guidance for ethical decision-making are necessary to close these gaps. When using a machine-learning algorithm the risk is even greater. Machine-learning algorithms draw data from society to make decisions. Hence, they may conflict

[492] ICO (n 377).
[493] Secretary of State for Business, Energy and Industrial Strategy, 'Government Response to House of Lords Artificial Intelligence Select Committee's Report on AI in the UK: Ready, Willing and Able?' (Her Majesty's Stationery Office 2018) <https://www.parliament.uk/globalassets/documents/lords-committees/Artificial-Intelligence/AI-Government-Response2.pdf> accessed 6 December 2023.
[494] Sandra Wachter, Brent Mittelstadt and Chris Russell, 'Counterfactual Explanations Without Opening the Black Box: Automated Decisions and the GDPR' (2017) 31 Harvard Journal of Law and Technology 842.

with the initial programmed ethical guidelines and replicate the inequality and discriminatory patterns inherent in the data they are trained on. If sensitive, personal information such as gender, age, and race are used during the decision process to classify individuals, this may impact the outcome of advice by negatively correlating the information.[495] Addressing bias requires ongoing efforts to ensure fair and inclusive algorithm decision-making. There are many aspects of bias risks in digital advice.

5.5.3 Technology risk

Data privacy and cybersecurity risks are all linked with algorithms and data on which tasks are performed. This requires rigorous processes in place to prevent unauthorised modifications or disruption in the data chain. Robust security measures help safeguard sensitive information and ensure the entire system's integrity. The collection of personal information for robo-advisory services raises concerns about data privacy and security. Investors may face harm if they lack clarity on when and with whom their personal information is shared. Maintaining client privacy is crucial to safeguard against data leakage. Online advisors must focus on strengthening security measures to build user trust as trust is the key driver of financial decisions and the adoption of robo-advisors.

Investors with trust in the system and new technology are more likely to invest in the stock market using a new form of automation. In the present context trust can be defined as the belief on which a transaction between the parties is entered into in terms of which one party acts in the best interest of the other (here, its client). The trust serves to mitigate uncertainty and risks. In the case of robo-advisors, confidence in robots involves various aspects, including robustness, reliability, transparency, and fiduciary responsibility. Investors depend heavily on the more or less complicated algorithms throughout various stages of the advisory process, which later determine the optimal asset allocation.

From investors' perspective trust is a cardinal factor in robo-advisor services. The European Commission has highlighted several requirements for trustworthy algorithms based on systemic, individual, and social aspects. These cover: (1) human agency and oversight; (2) technical robustness and safety; (3) privacy and data governance; (4) transparency; (5) diversity, non-discrimination, and fairness; (6) social and environmental well-being; and (7) accountability.[496] At this stage, investors entrust algorithms and bear the risk that incorrect decisions made by robots will lead to poor

[495] Taeihagh (n 392) 141.
[496] European Commission, 'High Level Expert Group on Artificial Intelligence, Ethics Guidelines for Trustworthy AI' (n 309) 14.

performance. Consequently, trust in these algorithms becomes an important part of the adoption of robo-advisory services. Two sources of trust can be distinguished: intrinsic and extrinsic. Intrinsic trust is met when the user understands the reasoning behind the decision that was taken and when it matches his or her prior experience. The second source of trust – extrinsic trust – exists when the model becomes trustworthy through behaviour.[497] Technology itself does not create trust, but humans trust people overseeing a technology.

5.5.4 Operational risk

Robo-advisor services also present operational risk. In case of many benefits applicable to robo-advisors, there is a risk of not receiving a comprehensive assessment. The robo-advice system is not capable of detecting nuance in communications with customers. This means that if incorrect data is provided or is incorrectly understood by the client, unsatisfactory investment will result. At this point, the client has no choice but to rely on and believe in the accuracy of the software accuracy and the algorithms behind it. The situation also shows signs of an information asymmetry problem as clients are not able to judge or verify the quality of the financial products on offer.[498]

To minimise the errors and omissions that occur, robo-advisor services require a robust governance system and adequate supervision of algorithms. To fulfil these requirements, qualified "experts" are needed to validate the modification of algorithms and regularly review advice and systems, including the processes and outcomes of advice, risk profiling, and suitability assessment. The company offering the service should have technological, financial, and human resources to operate the online platform. The system should be reliable, and any unclear situation should be resolved with due diligence.

At the systemic level, concentration and interconnectedness risks may occur. As with the increasing development and advancement of AI barriers to entry may arise and lead to outsourcing services to key players with technological infrastructure and talents. However, this approach may result in overreliance on third-party providers and pose a dependency risk.[499]

[497] Alon Jacovi and others, 'Formalizing Trust in Artificial Intelligence: Prerequisites, Causes and Goals of Human Trust in AI', *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency* (ACM 2021) <https://dl.acm.org/doi/10.1145/3442188.3445923> accessed 22 December 2023.
[498] Philipp Maume, 'Regulating Robo-Advisory' (2019) 55 Texas International Law Journal 49.
[499] Jermy Prenio and Jeffery Yong, 'Humans Keeping AI in Check – Emerging Regulatory Expectations in the Financial Sector' (2021) 35 Financial Stability Institute 1.

5.5.5 Liability risk

There are a number of different risks associated with robo-advisors which for our purposes need to be categorised and linked with the current regulatory system. As we have seen, there is currently no separate regulation for robo-services in the UK and decisions about requirements are left up to individual regulators. Rules applicable to traditional advice are also relevant for robo-advisors. It is worth noting that the form of traditional and digital advice differs; hence, some aspects of regulation need to be adjusted or some simply do not exist. An example is the technological elements like AI used in robo-advice services. Some regulators[500] have provided guidance on the application of existing regulations in robo-advice services. The guidance is often aimed at clarifying and facilitating the application of the current regulatory framework rather than introducing entirely new rules. The goal is to offer regulatory clarity and ensure that existing regulations are effectively applied to the evolving landscape of robo-advisory platforms. In the context of compliance, one of the factors limiting robo-advice services is the GDPR right to explanation. Due to the complexity of AI algorithms used when providing advice, there can be difficulties in providing meaningful responses. To minimise the risks, the national regulator ("ICO") issued guidelines for companies on how to approach.[501] This factor is crucial as it may affect investors' trust in automated decisions.

5.6 Regulatory risks in the robo-advice area

The AI risks presented above set out the risks applicable to robo-advice services. It can be noted that the autonomous nature of AI systems raised the issue of a possibly diminished role for human autonomy. To minimise any negative aspects and adverse risks, governments worldwide should try better to understand the scope of the risks created by new technology. To satisfy the above summary of risks, they need to be categorised and presented broader context focused on the regulatory aspects.

5.6.1 Regulatory strategy

The regulatory aspect of robo-advice needs to be presented from two perspectives: regulation of advice; and regulation of AI which is an integral part of digital advice. As we have seen earlier in this research, robo-advice services do not have a separate regulation set up. However, they must comply with the same regulatory standards as traditional discretional or advisory services. At this point, it

[500] In the US, SEC issued Staff Guidance and Investor Alert regarding application of robo-advisors in 2017, also in the UK FCA published document containing guideline on streamlined advice.
[501] ICO (n 377).

should be noted that robo-advice services are regulated in accordance with the extant legal framework. However, a part of digital advice that is not regulated is the AI system. As it is constantly improving and developing, the technology-neutral approach has been introduced as a general principle in the UK.

The regulatory strategy in the robo-advice context in the UK can be discussed on the basis of the balance between external regulations and reliance on internal government processes. As mentioned above, the robo-advice legal framework is based on traditional advice; hence, respected MiFID articles and the FCA rules and principles are taken into consideration. However, alongside these, other regulations such as the Data Protection Act, Anti-Money Laundering Act, and the Equality Act also apply. In the UK, the FCA oversees robo-advisors and helps develop the area by offering the FCA Advice Unit, where regulators can provide feedback to firms developing automated advice models. This information applies to the wider aspect of robo-advice. However, AI regulation does not exist. As was decided on a national level, the UK aspires to be a global AI superpower. To allow constant growth in the AI space, the best approach is to watch closely with minimum intervention. Technological-neutrality principles for AI and internal governance processes put in place currently apply while internal guidelines are left to be managed by applicable regulators.

The current approach in the UK could be seen as a meta-regulation where the principal legislation is supported by internal regulatory guidelines in the form of self-regulation. This creates a balance between regulation and internal governance in that it makes it possible to consider the current regulatory framework and make adjustments over time if necessary. The increasing focus on AI and its safe adoption, creates an effective level of supervision; however, this approach is not above criticism. From a general point of view, this approach makes sense and fits into the current regulatory framework in the UK as it allows companies the freedom to explore new digital assets and apply more advanced AI models without closing barriers to entry or market restrictions.

On the other hand, it is worth looking closely at the specific risks in robo-advice services and the general principles of AI applicable to them. These include fairness, sustainability, safety, accountability, and transparency. These aspects play an important part in the financial system and are part of a wider discussion in relation to risks that they can occasion. One of the first risks in a robo-advice area is algorithmic risk which is closely linked with the AI system used to produce digital advice. As the AI system develops rapidly, the transparency and explainability of the algorithms are becoming ever more difficult. In some respects, like neural networks, it is even more difficult to explain the behaviour hidden behind decisions due to the “black box” problem. This risk is not fully

covered by the general AI transparency principles as based on it, algorithms used in the robo-advice process should be clear and understandable for both users and regulators. In addition, in terms of the law the customer is entitled to claim the right to explain which, based on the above example, cannot be fully exercised in some cases. The second notable risk is bias and errors on the robo-advice platform which may prevent it from achieving the best investment returns. In some cases these are difficult to eliminate as the system is based on data from the past and may be less capable of responding to unexpected behaviour and data provided. Again, the AI principle of fairness states that the system used should be fair and not result in discriminatory outcomes – a very general requirement. Further, operational areas need to be highlighted as risks may also occur here. Accuracy of the data with a focus on data privacy and system safety is crucial to ensure that client data is secured. However, inadequate supervision or inefficient testing, lack of audit, and review may have significant consequences. Sustainability and accountability are other aspects where risks may arise if inadequate testing and a lack of robust governance control are introduced.

In summary: it is clear that part of the problem is that AI principles are very general and do not always cover the full spectrum of risk. This immediately creates challenges for robo-advisor firms. However, being recognised as principles in an unregulated and constantly changing AI environment provides an initial guide for companies to minimise risks. While risks exist, many firms are actively working to mitigate specific risks and improve the reliability and effectiveness of robo-advice services. It is worth adding that the effectiveness of these principles depends on how well they are implemented in the design and operation of the robo-advice services.

5.6.2 Control of entry and management qualifications

Robo-advice services are based on the same set of rules as traditional advice, with the addition of the technology-neutrality principle applied to the AI aspect. The applicable rules need to meet the consumer protection requirements and management qualifications. This is a standard procedure that must be in place in the robo-advice business model. However, regulatory risks in robo-advisor services involve potential challenges related to compliance with financial regulations. If regulatory risks are to be taken into consideration at some stage and must focus on consumer protection, robo-advisor services will require a specific version of those rules. On the other hand, it has been claimed statement that the technology-neutral approach is sufficient – ie, normal requirements will apply without additional changes to regulatory aspects. Moreover, it will be left to robo-advice firms to decide how to tackle the new risks to their activities. This approach is not recognised as an adequate solution in that many aspects could fall through the cracks and, in the end, be unresolved. This also increases the risk of not focusing fully on consumer protection and the best interests of the client

while delivering digital advice. This situation may open doors for companies to act in their own interests. The introduction of more specific rules and changes in the regulations could also impact the company's operations, requiring adjustment to existing processes and technologies. This aside, new more stringent regulations may require additional resources for compliance, leading to increased compliance costs for robo-advisory firms. This may, in turn, result in the creation of barriers for new entrants with similar services, limit competition, and potentially reduce choices available to consumers. Excessive regulation might stifle innovation in the industry and hinder the development and implementation of new and advanced technologies.

There is an interesting observation related to operational risks and an inverse correlation between people who work with data and their expectations regarding how complete and accurate data is. Those experienced in working with data typically anticipate encountering issues; while the inexperienced often overestimate the comprehensive nature and accuracy of data. When regulators lack experience, there is a risk of placing excessive trust in robo-advisory assurances. This limits the evidence required to confirm that adequate testing has been put in place.[502]

With the current technology-neutral principle in place and a lack of additional regulations to date, each company must tackle the potential compliance challenges independently to ensure that it has robust risk management practices in place to handle market and operational risks. Regular monitoring of regulatory updates and maintaining a proactive approach to compliance are essential in mitigating the regulatory risk.

An important factor in robo-advice services is the qualifications of the employee. Based on the standard requirements, companies are required to employ personnel with adequate skills, knowledge, and expertise to fulfil their assigned responsibilities. In the case of streamlined advice, the rules are stricter and employees without additional qualifications and expertise must refrain from offering personal recommendations. Additional rules and guidelines relating to specific retail activities are part of the Training and Competence regime. This regime embodies: (1) the "competent employee rule" which applies to individuals engaged in regulated activities in the UK authorised firms set out in the Senior Management Arrangements and Systems ("SYSC") Sourcebook; [503] (2) detailed requirements for advising or providing personal recommendations on securities and retail investment products are set out in the Training and Competence Sourcebook ("TC").[504]

[502] Tom Baker and Benedict Dellaert, 'Regulating Robo Advice Across the Financial Services Industry' (2017) 103 Iowa Law Review 713.
[503] FCA Handbook SYCS.
[504] ibid TC.

When streamlined personal advice is provided, the firm providing the automated service is responsible for the recommendations provided, including the suitability of the advice. However, depending on the format of the robo-advice service offered, different issues may arise. As was mentioned earlier, the robo-advice services may offer fully automated or hybrid levels of automation with customer support available on the side. In the case of a fully automated advice service, as the name suggests, there is no employee involved in the provision of recommendations so the advice is provided through an automated system. At that point the design of the system is crucial, and regulators would expect that during the design, testing, and implementation process, competent individuals with expertise across different areas will be involved. As algorithms play a significant role in the AI system there is a possibility of running into the "black box" issue, which is not possible to explain. This states that the decision-making process run by AI is too complex to understand and explain, and even experienced employees with IT backgrounds will not be able to do it. In the case of a hybrid advice service, the employee with the required qualifications and expertise may assist the client through the streamlined process or even discuss the merits of the proposed recommendation. In this case, additional knowledge about AI systems and design processes is required to oversee the decision-making process. However, it is worth noting that some hybrid advice provides only pure customer service without personal recommendations.

5.6.3 Product governance regime

Product governance regimes involve regulations aimed at ensuring that financial products recommended or offered through automated platforms meet the needs of their target customers and that firms have robust processes for designing, approving, and distributing these products. In the UK the rules and guidelines relating to product governance are covered under MiFID II and the FCA Handbook, mainly the "Product Intervention and Product Governance" ("PROD") Sourcebook[505] and in "The Responsibilities of Providers and Distributors for the Fair Treatment of Customers" ("RPPD")[506]. These apply to both product manufacturers and distributors of products. Firms looking to operate through streamlined advice need to take them into consideration.

In terms of the rules governing robo-advice, firms must clearly identify the target market for their financial products. At this stage, information collection about potential customers, including specifically risk tolerance, investment goals, and financial sophistication, is crucial. The next step

[505] ibid PROD.
[506] FCA, 'The Responsibilities of Providers and Distributors for the Fair Treatment of Customers (RPPD)' <https://www.handbook.fca.org.uk/handbook/document/rppd/RPPD_Full_20190329.pdf> accessed 20 December 2023.

covers the design of the product based on the characteristics of the identified target market provided by the customer. This includes a level of risk associated with the products and expected return. Further distribution strategy needs to be in place. The robo-advisors must ensure that products reach the intended audience. At this stage suitability assessment may be implemented to match customers with suitable products based on their financial profiles. Furthermore, ongoing review and monitoring of the products and their performance is essential to make sure that financial products remain suitable for the target market. Clear and transparent communication is also crucial to ensure product governance requirements. This includes information about the recommended products, associated risks, and any changes that may impact investments.

Robo-advisors aim to ensure that their automated platforms offer suitable and well-designed financial products to ensure investor protection and regulatory compliance. Despite well-functioning rules, several issues may arise in the product governance of rob-advisors, posing challenges to ensure that financial products meet the needs of the target market. Algorithmic bias is one of them. Robo-advice services rely on algorithms when recommending products, and bias can result in unequal treatment and potentially disadvantaging certain segments of the target market. Closely related is an inadequate understanding of investor profiles which leads to recommendations that are not aligned with investors' needs and risk tolerance. All the above examples are linked to the complexity of the algorithms used in the decision-making process. Understanding them could be challenging not only for clients but also for firms, especially if more complex models such as machine learning or deep learning are used. This may erode trust and limit clients' ability to assess the suitability of recommended products. Over reliance on automation without human oversight can also lead to insufficient scrutiny of product design and distribution. Poorly designed AI models, even with accurate consumer data, may not provide suitable advice for consumers.

From a liability perspective, the robo-advice AI model is not treated as a separate legal entity, and responsibility for the robo-advice vests in the firm providing the tools to the consumers. Under current laws, the firm can be held liable if it does not fulfil its duties of care or suitability and so causes harm to consumers. However, there are voices suggesting that owners (firms) of advanced AI models should be exempted from the responsibility created by their tool's outputs.[507] Supporters of this argument propose alternative liability models. One of these is the agent model – where robo-advice technology will be recognised as an agent of the firm, similar to an employee.[508] The second is based

[507] Iria Giuffrida, Fredric Lederer and Nicolas Vermerys, 'A Legal Perspective on the Trials and Tribulations of AI: How Artificial Intelligence, the Internet of Things, Smart Contracts, and Other Technologies Will Affect the Law' (2018) 68 Case Western Reserve Law Review 747.
[508] Emad Abdel Rahim Dahiyat, 'Law and Software Agents: Are They "Agents" by the Way?' (2021) 29 Artificial Intelligence and Law 59.

on assigning legal personhood[509] with some support from insurance or compensation schemes that will cover financial liability.

This insurance-related path has already been taken by the European Parliament which adopted an own-initiative resolution on the Civil Liability Regime for artificial intelligence. The Resolution introduced a mandatory insurance regime which provides that

> 'the frontend operator of a high-risk AI-system shall ensure that operations of that AI-system are covered by liability insurance […]; the backend operator shall ensure that its services are covered by business liability or product liability insurance'.[510]

In this regard, a compulsory insurance scheme could provide the programmer, the owner, and the user limited liability benefits similar to existing practices in the motor vehicle industry. This approach would be advantageous if the beneficiaries also actively contribute to a compensation fund. Initiating collective liability will be the first step towards a financial safety net. This approach can help address the consequences of algorithmic misbehaviour, foster accountability, and encourage responsible development of AI systems. The alternative liability models are currently regarded as unsuitable. They may, however, re-emerge as robo-advice technologies evolve and become more complex.

5.6.4 Investors' remedies and other forms of redress

By providing recommendations the robo-advice services bring advantages to the mass market by allowing people to invest. With their rise in popularity, there is also an increase in risks regarding the use of technology and the resulting consequences. One of the concerns is the current legal uncertainty which may evolve into liability risks if not mitigated early enough. Investor protection is fundamental in robo-advice services to address the challenges posed by the services and ensure transparency and fairness and maintaining the trust and confidence of investors in financial services. When the system or algorithms cause a major break, to mitigate losses investors may look for the specific remedies available to them based on the circumstances of their cases. As of now, the capital markets have seen constant growth, and robo-advice investors are benefitting with great returns on investment. However, this may change when robo-advisors are subject to increased scrutiny.[511] Nowadays, robo-advice firms focus mostly on public supervision regimes rather than private-law liability risks. In case

[509] Solum (n 429).
[510] European Parliament, 'European Parliament Resolution of 20 October 2020 with Recommendations to the Commission on a Civil Liability Regime for Artificial Intelligence (2020/2014(INL))' art 4(4) <https://www.europarl.europa.eu/doceo/document/TA-9-2020-0276_EN.html> accessed 1 January 2024.
[511] Philipp Maume, 'Reducing Legal Uncertainty and Regulatory Arbitrage for Robo-Advice' (2019) 16 European Company and Financial Law Review 622.

of technological failure, responsibility vests in the investment firms even if they were not negligent in their advice process. However, if they breach their duties during the advice process, investors can claim damage in the form of compensation or alternative remedies. The duties expected include acting honestly, fairly, and in the best interests of their clients. This approach is typically referred to as the fiduciary duty of loyalty.[512]

The enforcement regime applicable to the robo-advice services combines public and private regimes. Private law can be used by investors to pursue legal action against the company for damage. In case of losses, the investor will typically seek compensation through litigation and will file a legal claim against the platform or company in cases of misrepresentation, breach of contract, or alleged negligence. Hence, private remedies are personal, while the public remedies have societal elements. There are different forms of remedy available to investors who suffer harm. The best known is compensation for actual financial losses. In cases involving fraud or misrepresentation, investors may seek rescission or an injunction to stop ongoing harm or prevent future misconduct.

In the event of legal proceedings, the investor needs to show and provide evidence of the damages suffered. The investor's ability to confirm and quantify the damages can impact on the outcome of the case. However, if the investor does not wish to proceed with a formal court case, another option is the alternative dispute resolution (ADR) mechanism. There are several ADR methods; the most common are mediation, arbitration, and the ombudsman services. In the mediation process, an independent third party (known as a mediator) helps the disputing parties come to a mutually acceptable outcome. The arbitration mechanism, on the other hand, allows an arbitrator to make a binding decision after evidence has been presented by both parties.[513] Alongside these is the ombudsman service. In the UK, if investors cannot resolve disputes with the robo-advice provider after initiating the internal complaint procedure, an additional option is to resort to the Financial Ombudsman Service ("FOS") for an independent review. The FOS provides a free service to resolve disputes without the need for costly legal actions. The decisions made by the FOS are binding on the financial business if the consumer accepts the outcome.[514] There is also the possibility of joining or initiating a class-action lawsuit if similar complaints are made against the same robo-advisor platform. Public law, on the other hand, can involve regulatory bodies acting against companies or

[512] Sandra Booysen, 'Financial Advice and Investor Protection: A Comparative Overview' in Sandra Booysen (ed), *Financial Advice and Investor Protection* (Edward Elgar Publishing 2021) <https://china.elgaronline.com/view/edcoll/9781800884618/9781800884618.00012.xml> accessed 22 January 2024.
[513] Department for Business Innovation & Skills, 'Alternative Dispute Resolution for Consumers' <https://www.gov.uk/government/publications/alternative-dispute-resolution-for-consumers/alternative-dispute-resolution-for-consumers> accessed 2 January 2024.
[514] House of Commons, 'Consumer Disputes: Alternative Dispute Resolution (ADR)' <https://researchbriefings.files.parliament.uk/documents/CBP-7336/CBP-7336.pdf> accessed 5 January 2024.

individuals for breaches of regulations and standards. In the context of financial advice, the FCA, as a key regulatory authority, may investigate breaches and take enforcement actions in the form of financial penalties on firms or individuals for breach of regulatory obligations. Moreover, it may suspend or revoke the licence, so preventing the firm from operating in the market. In addition, the regulator can publicly censure companies or individuals, highlighting their failure to meet regulatory standards.[515]

While investors may not initiate public law enforcement actions, they can report concerns to regulatory bodies like the FCA, which can investigate and take appropriate actions and measures. Investors can also initiate private litigation, as mentioned earlier, alongside public law enforcement. It is worth adding that the new consumer duty introduced by the FCA does not provide a private right of action for breaches of any part of the duty. The regulator, at the time of implementation, decided to give the industry time to adjust and realise the consumer benefit expected of them. However, many consumer organisations opposed this during the consultation period, noting that lack of consumer redress will undermine the impact of the duty. As a result, the FCA will not be able to introduce an industry-wide consumer redress scheme[516] and compensation[517] for breaches of the duty cannot be granted. An available option for the FCA is to use the power and require restitution from firms in breach of the duty under section 384 of FSMA. In case of a breach, firms are required to be proactive and rectify the situation by providing redress where appropriate.

5.7 RegTech approach in robo-advice services

In the current tech world, apart from Fintech, there is increasing potential for Regtech which uses technology to transform and improve compliance and regulatory processes.[518] The transformative approach created on AI-based compliance tools embedded in machines may include the automated preparation of reports, generation of legal documents, or detection of data anomalies. The compliance requirements can be made auto-executable by machine and delivered straight to the respective regulators. These transformative advantages will lower the cost of compliance over time and benefit not only firms and users but also regulators as they can perform their function more effectively and in real time. The combination of advanced technology and RegTech indicates an opportunity to create a different financial system. The greatest benefit flowing from incorporating RegTech is the general

[515] FCA Handbook ch The Enforcement Guide, The FCA's approach to enforcement.
[516] Financial Services and Markets Act 2000 s 404.
[517] FSCS, 'Financial Service Compensation Scheme' <https://www.fscs.org.uk> accessed 1 January 2024.
[518] Cheng-Yun Tsang and Yueh-Ping (Alex) Yang, 'RegTech and the New Era of Financial Regulators: Envisaging More Public-Private-Partnership Models of Financial Regulators' (2019) 21 Journal of Business Law 354.

automation, as with increasing pressure from regulators and raising the amount of data required for compliance purposes it offers greater efficiency. Applied RegTech solutions are far broader in scope than normal regulatory reports and may be presented in many forms.[519] Another advantage flowing from RegTech is improved accuracy in compliance activities through the use of AI technology, as well as enhanced security as it includes cybersecurity measures to protect sensitive data. Integration of advanced technologies within RegTech fosters innovation in compliance processes. Furthermore, some robo-advice firms may have separate compliance functions within their divisions; however, with an autonomous drive to digitalisation, incorporating automated compliance within the robo-advice model could be the next step.[520]

In the context of robo-advice services, RegTech can be seen as an alternative regulatory method for monitoring the regulatory standards of robo-advice. The new technology can help regulators understand the foundation of robo-advice and analyse robo-advice algorithms from different perspectives, as traditional forms may struggle with issues arising from the use of algorithms in investment advisory services.[521] Moreover, smart contracts and blockchain technology can be used by RegTech to automate regulatory reporting processes and provide transparent recording of transactions.

Alongside RegTech, a term that has been around for some time is SupTech which uses technology for supervisory functions. However, both RegTech and SupTech are recognised as two distinct mechanisms. It has been stated that:

> 'Suptech lets supervisors conduct supervisory work and oversight more effectively and efficiently. This differs from regtech, as suptech is not focused on assisting with compliance with laws and regulations but on supporting supervisory agencies in their assessment of that compliance'.[522]

5.8 Conclusion

Robo-advisory services have revolutionised the financial markets by combining technology and investment strategies. They are powered by algorithms and artificial intelligence to create personalised and automated investment decisions. The new, automated form of investment advice

[519] Deloitte, 'Using RegTech to Transform Compliance and Risk from Support Functions into Business Differentiators' (2018) <https://www.deloitte.com/content/dam/Deloitte/lu/Documents/risk/lu-using-regtech-to-transform-compliance-and-risk-from-support-functions-into-business-differentiators.pdf> accessed 5 January 2024.
[520] Iris HY Chiu, 'Transforming the Financial Advice Market - The Roles of Robo-Advice, Financial Regulation and Public Governance in the UK' (2019) 35 Banking and Finance Law Review 9.
[521] Joseph Lee, 'Access to Finance for Artificial Intelligence Regulation in the Financial Services Industry' (2020) 21 European Business Organization Law Review 731.
[522] BIS, 'Sound Practices: Implications of Fintech Developments for Banks and Bank Supervisors' 35.

requires that companies introduce, amend, or adjust their business models. Automated online advice differs from traditional advice. In the case of traditional advice, a significant aspect is a human advisor who will look at the client's financial situation and relevant elements that can impact investment choice. On the other hand, the "online advisor" is built-in software that provides recommendations based on information introduced by clients. The investor fills out questionnaires with information such as age, occupation, income, savings, financial goals, and risk tolerance. Based on this input, the AI software analyses and prepares the investment portfolio tailored to the client's needs. It is worth pointing out that most services offer passive investments such as investing in the Index and exchange-traded funds (ETF) which track broad market benchmarks. The new form, however, lacks human judgement, as most robo-advisors are fully automated. On the other hand, the automated decision process continuously monitors and rebalances portfolios based on market conditions by optimising risks. It also creates cost-effective solutions with lower fees compared to traditional advice. This makes it more accessible to a broader audience. Robo-advice services are also recognised as a form of disruptive innovation in that they change the way in which advice is delivered to younger, tech-savvy investors who have never engaged with human advisors due to the high costs involved. It could be said that online robo-advice services were created as a response to low access to financial services. As of now, due to accessibility, they fill the advice gap by offering investment recommendations at lower cost. Hence, there are many benefits flowing from this innovation. Despite their success, online robo-advice services also face challenges associated with the application of new technology. This is closely linked with AI and regulatory risks. The first challenges highlighted were associated with ethical concerns regarding algorithms and a lack of transparency in the decision-making process. Moreover, technological and operational risks were set out as well as the need for effective measures to address data security and privacy. Regulatory risks were also detailed. As was noted above, online advisors are not subject to separate legislation in the UK. This means that they need to follow the rules applicable to traditional advisors. The point to keep in mind is that AI, which is an integral part of robo-advice services, is also not regulated. Consequently, the balance between external regulations and internal governance processes needs to be considered. In the UK this can be seen as a meta-regulation, where traditional legislation is connected and supported by internal regulatory guidelines. It appears to tie in perfectly with the current regulatory system which is open to innovation while keeping an eye on development. However, this approach does not escape criticism as there are many risks – technological, algorithmic, or of bias – which may have a negative impact on decisions taken for consumers. It can be said that internal AI principles could be too narrow and not always cover the full spectrum of risks raised by innovation. However, in an unregulated environment the principles provide at least some form of initial guidelines for companies to follow and minimise the risks. On top of that there are also regulators who actively overlook the market. The existing technology-

neutral approach plays its role by allowing companies greater autonomy to decide about their services. However, it also increases the risks of focusing only on the company's return and not on consumer needs and protection.

That is why consumer protection in robo-advice services is essential, and regulators have already taken several measures to safeguard users. An example is the Code of Conduct, which applies to online advisors in the same way as traditional advisors. Providing transparency, fairness, and creating trust are the key elements, together with the "consumer duty" which introduced even higher standards of consumer protection. The investor also has the right to make use of private remedies. In the event of technological failure of AI software that causes financial loss, investors can claim damages in the form of compensation or alternative forms of relief. Public enforcement by regulators can also be used against companies to establish regulations and standards.

The current regulatory landscape shows a matrix of different regulatory approaches applied under the robo-advice regime. The principle of technological neutrality plays a key role here by giving regulators time to understand innovation and apply necessary rules where required, such as the latest introduction of consumer duty.

However, a full understanding of the regulatory treatment of financial robo-advice is only possible by considering the evolution of the regulation of financial advice. For that reason, the following chapter focuses on the shaping of regulation for financial advice. The analysis presented in the next chapter will help in understanding the changing regulatory environment and its evolution of the in this field.

6 Chapter VI: Evolution of the regulation of financial advice

6.1 Introduction

Regulations are everywhere and on almost every level of our lives. Even if they are not visible, they play their role by ensuring that society and the economy work well together. Regulation is a set of rules and directives created and maintained by government bodies or regulatory agencies and are aimed at controlling, directing, and influencing the behaviour and activities of individuals and firms. Nowadays regulations play a significant role in protecting the public interest as they are designed to safeguard the safety and rights of the public – eg, consumer protection against fraudulent practices in the financial sector. Maintaining fair competition is the second fundamental aspect as regulations prevent market abuses and attempt to ensure a fair and level playing field for businesses. Regulations also help manage negative externalities, like environmental regulation, which encourages companies to adopt clean technology, promote sustainable practices, and impose limits on pollution levels.

They also have an impact on financial stability by ensuring that the financial system is stable and resilient. Data privacy and cybersecurity are also key aspects here. With increasing reliance on technology and digitalisation, privacy data regulation is key to protecting personal information and holding businesses accountable for data breaches. Ethical standards set by regulations help to maintain high standards within the financial sector.

In previous chapters the role of regulation and rationale for them were highlighted. The interconnection between regulation and innovation was also examined and the impact of AI was highlighted as a significant element in the robo-advice structure. Robo-advice offers numerous advantages for the provision of advice but it also has limitations.

As this research focuses on an automated financial advisory service (robo-advice), it is worth returning to the roots better to understand the aspects and challenges facing a new approach. With the increased demand for innovation, concern arises about the approach that should be taken. The question raised in the previous chapter involved finding the best approach for innovation and how to treat it in the current situation. To answer that question, we return to the background to consider how regulations in the UK have developed over time and what challenges the system faces. Alongside this we need to highlight the development of financial advice regulation and focus on how it has been shaped over time. The information gathered will allow us to understand the regulatory aspect of financial advice and current forms of regulations. At present, robo-advice regulation is closely based on traditional financial advice and understanding the legal aspect in the original format is essential.

The focus starts with the development of self-regulation in the financial sector and its impact on the advice sector during the polarisation regime. Despite new regulations, problems arise. Soon after, new reforms in the retail investment sector were introduced offering greater protection for retail investors. Additionally, the chapter explores the Conduct Rules by providing an overview of the key rules and application of the current regime for financial advisors. This chapter offers an opportunity to understand the evolution of regulation of financial advice.

6.2 Self-regulation

The financial sector in the UK, was heavily based on self-regulation. Baggott defined it as 'an institutional arrangement whereby an organisation regulates the standards of behaviour of its members'.[523] There was a growing interest among scientists with focus on self-regulation and its relationship between state, society, and private organisations. Accordingly, in academic debate three perspectives were identified. First, self-regulation as a corporate state where state authority is decentralised to private organisations which manage standards for its members. Second, the possibility of reducing state influence and withdrawing from a direct regulatory role. And third, self-regulation as a form of quasi-government with a focus on accountability and public concern.[524] But question arising is why the organisation would want to do that? One of the reasons is to ensure uniform standards across all members. Another is to secure public approval, while a third is to avoid direct regulation by the state. Further, the self-regulatory system can be divided in three categories: degree of formality, legal status, or participation of outsiders. As regards formality, self-regulation can be classified as informal or formal.[525] Legal status also varies depending on whether the self-regulation is based on voluntary agreement or not. This relates to the inclusion of "outsiders" such as members of the public or representatives to if it is to be seen as credible and enjoy the support of the public.

Various forms of self-regulation can be identified in Britain's financial system. An example is the stock exchange which set up its own rules for the operation of the market.[526] Another example is the insurance industry where the principle of self-regulation was preserved under The Lloyd's Act 1982.

[523] Rob Baggott, 'Regulatory Reform in Britain: The Changing Face of Self-Regulation' (1989) 67 Public Administration 435.
[524] ibid 435–436.
[525] ibid 437. Informal self-regulation is: 1) regulation by organisations whose activities are the focus of public concern; 2) regulation by private associations. Formal self-regulation is: 1) regulation by bodies created by a private association; 2) regulation by a private association; and 3) regulation by the statutory body promoted by a professional organisation.
[526] Robert R Pennington, *The Law of the Investment Markets* (Blackwell Law 1990) ch 2.

As Ferguson states:

> 'the importance of Lloyd's new private Act lies in the fact that it revolutionises the constitution of Lloyd's in order to establish a system of self-regulation that is workable under modern market conditions. […] The real basis of the system was non-statutory: a combination of unwritten laws and contractual arrangements'.[527]

The self-regulation approach was also visible in the banking sector, however not in a formal way.[528] This traditional ethos of self-regulation has spread into the financial service sector. In 1984, the Gower Report[529] containing a review of investor protection and the regulatory landscape in the UK appeared. The Report was based on an extensive analysis of the regulatory framework between 1981 and 1984 which represented a combination of statutory and self-regulation provisions.[530] The existing provisions did not cover investment advice and were based on the principle of *caveat emptor*.[531] An important problem highlighted by Gower is the evaluation of information by the investor. He stated that:

> 'it is in the nature of investments that their risk cannot be adequately assessed on the basis of existing information about them, since the risk depends too on the probity and skill of those who will in future be managing the investment or undertaking in which the investment is made'.[532]

A similar problem was identified by the Wilson Committee which stated: 'by their nature financial services are often more difficult than other goods and services to test at the time of purchase. Some are used relatively rarely, and the benefits may be deferred and have to be taken largely on trust'.[533] Based on the above, Page and Ferguson make two points. First, that the principle of *caveat emptor* should be rejected. It was explained by Pennington thus:

> 'the notion of the early common law, that the buyer must make his own inquiries and the seller need not volunteer information – the notion of caveat emptor – was sensible only when applied to things whose qualities and defects could be discovered by a physical inspection which the buyer was as competent to undertake as the seller'.[534]

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[527] Robert Ferguson, 'Self-Regulation at Lloyd's: The Lloyd's Act 1982' (1983) 46 The Modern Law Review 58.
[528] The Banking Act 1979 contained the elements of the self-regulation approach in the form of different treatment for licensed deposit takers and recognised banks.
[529] Laurence CB Gower, *Review of Investor Protection: Report, Part I, Cmd., No. 9215* (Stationery Office Books 1985).
[530] Graham F Pimlott, 'The Reform of Investor Protection in the U. K. An Examination of the Proposals of the Gower Report and the U. K. Government's White Paper' (1985) 7 Journal of Comparative Business and Capital Market Law 141; Paul Draper, 'A New Framework for Investor Protection, Cmnd 9432' (1985) 10 Quarterly Economic Commentary, 64.
[531] *Caveat Emptor* reflects a legal presumption that buyers have an ability to judge the quality and suitability of goods before purchase is made - Walton H Hamilton, 'The Ancient Maxim Caveat Emptor' (1931) 40 The Yale Law Journal 1133.
[532] Laurence CB Gower, Review of Investor Protection: A Discussion Document (Stationery Office Books 1982) s 2.01.
[533] ibid 1079.
[534] Robert R Pennington, *The Investor and the Law* (MacGibbon and Kee 1968) 158.

The second refers to the introduction of the minimum assurance of the quality of the goods or services purchased. The Deputy-Governor of the Bank of England stated in the Joseph Travers Lecture in 1984 that:

> 'it is inherently difficult for the individual consumer to assess the good and services he is buying […] there seems to be a case for lying down minimum standards or guidelines for some activities where an individual would find it hard to assess for himself the risk of loss in a particular transactions'.[535]

The new two-tier system was not only in the hands of regulatory groups appointed by the government but also practitioners. The overall report showed the inadequacy of the regulatory system. This is exemplified by various scandals during 1981. One of these related to Norton Warburg Management Investments which lost £2.5 million client's money. The problem centred around a conflict of interest between clients and investment firms.[536] At that time there were no provisions which required disclosure of a conflict of interests between parties. Following a number of debates on Gower's proposal, the government issued a White Paper.[537] The vast majority of Gower's recommendations were accepted and introduced in the new proposals for the regulation of investment businesses which contained an extension of the self-regulation ethos.

6.3 The time of change: post-1986

In 1988 the Financial Services Act 1986 was implemented.[538] It was recognised as the first step into a modern era of investment business in the UK. The implementation date was crucial as it came when significant changes were made within the financial sector. Most of these predated 1986, such as the removing of exchange control in the UK in 1979 which allowed for the internationalisation of the financial markets. The Act brought two symbolic changes to the regulatory regime. First, it was applied to the creation of a single regulatory structure for all investment businesses; and second, it largely ended the tradition of self-regulation. The Act created the Securities and Investments Board ("SIB") with regulatory power to oversee the implementation of the Act. The responsibilities for day-to-day regulation were assigned to Self-Regulating Organisations ("SROs"), Recognised Professional Bodies ("RPBs"), Recognised Investment Exchanges ("RIEs"), and Designated Investment

[535] The Bank of England, 'The Business of Financial Supervision' <https://www.bankofengland.co.uk/-/media/boe/files/quarterly-bulletin/1984/the-business-of-financial-supervision.pdf?la=en&hash=EEB032CEEABE5AEAF80655F729DA7428729C2578> accessed 20 October 2023.
[536] The Financial Times, 'Concern over Norton Warburg "Silence"' (London, 7 March 1981) 16.
[537] UK Government, 'The White Paper. Financial Services in the United Kingdom: A New Framework for Investor Protection, Cmnd.9432.'
[538] Draper (n 530).

Exchanges.[539] Initially, there were five SROs: the Securities Association ("TSA"), Association of Futures Brokers and Dealers ("AFBD"), Financial Intermediaries, Managers and Brokers Regulatory Association (FIMBRA); Investment Management Regulatory Organisation (IMRO), and the Life Assurance and Unit Trust Regulatory Organisation ("LAUTRO"). Financial advisors and other members who offered advice to the public were part of FIMBRA.[540]

One of the new features of the legislation was the requirement of "authorisation".[541] The Act stated that 'no person shall carry on, or purport to carry on, investment business in the United Kingdom unless he is an authorised person […] or an exempted person'.[542] According to Singh, the Act introduced 'a structure of self-regulation within a statutory framework to oversee investment business'.[543]

The implementation of the new investment business regime was warmly welcomed. But within a short time voices were raised highlighting the complexity of the Act, high costs, inflexibility, and the legalism of the SIB and its rulebook. Criticism flowed in rom virtually all quarters of the investment business industry.[544] The main concern centred around the SIB's approach to the "principles of equivalence" which were regarded as overly complex. On the other hand, the main aim of the SIB was to achieve a uniform standard of investor protection across self-regulated organisations and professional bodies. Shortly thereafter, in 1988, a draft of new conduct of business rules was published. Instead of providing more simplified rules, the draft was more complex than the original. It was hastily dropped and replaced by a "new settlement" proposal to harmonise requirements across various regulatory bodies was introduced in the Companies Act 1989. The amendments resulted in the creation of a tiered system of rules. The SIB was responsible for principles (the basic values and objectives) and core rules (to show that principles apply to all investment businesses) with SROs for

[539] RIEs included International Stock Exchange (in this case it was London Stock Exchange), London International Financial Futures Exchange (LIFFE), London Metal Exchange (LME), London Commodities Exchange (LCE); DIEs included Association of International Bond Dealers (AIBD); RPBs included Insurance Brokers' Registration Council (IBRC), Accountants, Solicitors, Actuaries -Maximilian JB Hall, 'Chapter 8: Implications of the Financial Services Act 1986' in Maximilian JB Hall, *Handbook of Banking Regulation and Supervision in the United Kingdom: Third Edition* (Edward Elgar Publishing 1999) <https://www.elgaronline.com/view/9781858988184.xml> accessed 23 June 2022; House of Commons Library, 'Financial Markets: Supervisory and Structural Reform: The Draft Financial Services Bill' (2011) SN/BT/5934 <https://commonslibrary.parliament.uk/research-briefings/sn05934/#fullreport> accessed 12 October 2022.

[540] House of Commons Library, 'Financial Services: Regulators and Ombudsmen. Research Paper 95/129' <https://researchbriefings.files.parliament.uk/documents/RP95-129/RP95-129.pdf> accessed 10 October 2021.

[541] David M Barnard, 'The United Kingdom Financial Services Act, 1986: A New Regulatory Framework' (1986) 21 International Lawyer 343.

[542] Financial Services Act 1986 chs 2, Para 3.

[543] Dalvinder Singh, *Banking Regulation of UK and US Financial Markets* (Routledge 2007) 11.

[544] Julia Black, *Rules and Regulators* (Clarendon Press ; Oxford University Press 1997) ch 3.

third-tier rules. Soon after, in 1994,[545] all SROs merged into three organisations: the Securities and Futures Authority (SFA), the Investment Management Regulatory Organisation ("IMRO"), and the Personal Investment Authority ("PIA").[546] FIMBRA and LAUTRO were largely replaced by the PIA, which was recognised as a new self-regulatory organisation for the investment business industry in the UK.[547] Its responsibilities covered the investment business area with prudential and conduct of business rules[548] set up by the Securities and Investment Board and other bodies under the Financial Service Act.

6.3.1 Polarisation and investment advice concept

The new Financial Services Act 1986[549] that came into force on 29 April 1988, contained a new concept of investment advice. As stated in Part 2 of Schedule 1 to the Act, investment advice is understood as:

> 'Giving, or offering or agreeing to give, to persons in their capacity as investors or potential investors advice on the merits of their purchasing, selling, subscribing for or underwriting an investment, or exercising any right conferred by an investment to acquire, dispose of, underwrite or convert an investment'.[550]

Consequently, the SIB draws a distinction between general and specific advice on investment. General or generic advice will not be treated as investment advice if it is provided, for example, on the merits of investing in Europe as opposed to China. On the other hand, advice given on specific investments is recognised as investment advice. For example, when an advisor recommends buying shares in a particular company.[551]

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[545] Accurately, in 1991 The Securities Association and Association of Futures Brokers and Dealers (AFBD) merged into Securities and Futures Authority (SFA) and in 1994, Life Assurance and Unit Trust Regulatory Organisation (LAUTRO) and Financial Intermediaries, Managers and Brokers Regulatory Association (FIMBRA) merged into Personal Investment Authority (PIA).

[546] House of Commons Library, 'Financial Services: Regulators and Ombudsmen. Research Paper 95/129' (n 540).

[547] The first idea about the creation of one regulator - PIA was presented by Sir Kenneth Clucas in his report in 1992. One of main aim was to strengthen FIMBRA position. Then in 1994 interim report was presented by Treasury and Civil Service Committee (TCSC). It focused on creation the regulation of financial services and establishment of PIA. - SIB, 'Retail Regulation Review - Report of a Study by Sir Kenneth Clucas on a New SRO for the Retail Sector' (1992); House of Commons, Treasury and Civil Service Committee, 'Retail Financial Services: An Interim Report, Fourth Report' (1994) Session 1993-94.

[548] Singh (n 543) 11.

[549] Financial Services Act 1986.

[550] ibid Schedule 1, Part 2, par. 15.

[551] SIB, 'The Financial Services Act and the Press Part One: Guidance Authorisation and Exemption under the Financial Services Act Part Two: Consultative Paper Proposed Rules' (1988) 9,11.

With the introduction of the new form of financial advice, the FSA 1986 introduced a policy termed "polarisation". According to the SIB 'the polarisation arrangements which are meant to give effect […] are a regulatory fissure cut deep across the market landscape'.[552] The aim of the new concept was to reduce consumer confusion as investors were not able to distinguish whether the financial product was produced and marketable or recommended by the advisor. Polarisation applied only to advice related to package products, such as life policies, personal pensions, collective investment schemes, stakeholder pensions, and investment trust savings schemes. Hence, mortgage and pure protection products did not fall under the polarisation umbrella. In this case, the advisor still was able to advise on non-packaged products on one hand and to act "independently" by selling packaged products on the other.[553]

Under the rule, the firm had to choose whether it would continue to sell a packaged product offered by a single provider, or advise their clients on the full range of products available on the market. The firms that chose the second option were called "independent intermediaries",[554] and the financial advisor who offered only the "packaged products" was required to choose between an independent financial advisor or company representative (tied agent). The new rule was introduced to improve consumers' understanding of financial advice and promote the class of new advisors called independent financial advisors (IFA). Ever since, independent financial advisors have been required to choose from products offered by the whole market when the firm or company representative could sell products of single providers only. However, this does not mean that IFAs will search the entire market for every customer. As stated in the FCA Handbook, IFA firms 'may maintain a panel of preferred packaged products selected from those generally available in the market, based on the criteria of quality of product and general suitability for customers'.[555] The panel needs to be reviewed regularly, especially when there are significant changes in the market, and receive written instructions describing the criteria were chosen during the selection, including a review timeline.

Polarisation was intended to cover problems in existing legal regimes for financial advice, such as information asymmetry and conflicts of interest. It is worth noting that the polarisation rule does not appear in the 1986 Act but in the rulebook issued by one of the self-regulators – the PIA – which is responsible for regulating the branches of the investment business dealing mainly with private investors. Rules 4 and 17 of the Core Conduct of Business Rules presented the key principle of polarisation:

[552] SIB, 'Retail Regulation Review - Discussion Paper No.2 - Polarisation' (1991) para 19.
[553] FCA Handbook SIFA 9.7 Polarisation: Effect of the rules.
[554] House of Commons Library, 'Polarisation, Briefing Paper No. 00792'
<https://researchbriefings.files.parliament.uk/documents/SN00792/SN00792.pdf> accessed 13 August 2022.
[555] FCA Handbook SIFA 9.7.5.

> ‘Rule 4 on polarisation required that where advice is being given on packaged products (which include life-assurance type products, such as pensions and unit trusts), a firm must either be an independent intermediary, or it must be a product company (or an associated company of a product company). If the firm is a product company, it may only advise customers on the products of its own company. If the firm is acting as an independent intermediary, it must act as an independent intermediary when it advises customers. This may sound circular, but the rule needs to be read with rule 17, standards of advice on packaged products, which requires that:
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> Rule 17(3) Where a firm is acting as an independent intermediary, it must not advise a private customer to buy a packaged product, or buy a packaged product for him in the exercise of discretion, if it is aware of a generally available packaged product which would better meet his needs’.[556]

Polarisation was also treated as a part of the requirements for providing “best advice”. However, each independent financial advisor has his or her individual resources and capabilities in performing the job. For example, they charge for their services by taking commissions or fee-based services. The independent financial advisors constantly compete with “tied agents”, represented in the main by the biggest banks or insurance companies. This led to the situation where some IFAs tried to sell products from pre-vetted providers (to receive an additional commission) instead of looking at the best financial products for their clients. This situation shows that clients were exposed to the risk of not knowing on whose behalf those who offered them financial advice were acting.[557]

The concept of polarisation was criticised by the Office of Fair Trading (“OFT”) in 1999.[558] The principal argument brought by the office was the restriction on competition, notably in the form of the availability of the financial products and the distribution channels. This led to the prevention of innovation in the retail market. A few studies were conducted by the FSA[559] and debated. A rule was questioned not only by the FSA but also externally to judge the effect of the polarisation regime. Polarisation led to disadvantages for many consumers. According to the FSA, most consumers chose a tied agent in preference to the IFA as they preferred to know the product provider. Additionally, there was evidence that there was restricted access to independent advice for most consumers. In summary: there were positive aspects of reforming/ending the polarisation regime. Consumers were able to access a wide range of better-quality financial products offered in the market. It also helped

[556] House of Commons Library, ‘Polarisation, Briefing Paper No. 00792’ (n 554) 4.
[557] ibid 4–5.
[558] OFT, ‘The Rules on the Polarisation of Investment Advice’, (1999).
[559] London Economics, ‘Polarisation and Financial Services Intermediary Regulation: A Review for the Financial Services Authority’ (2000) <https://londoneconomics.co.uk/wp-content/uploads/2011/09/106-Polarisation-and-Financial-Services-Intermediary-Regulation.pdf> accessed 16 January 2021; FSA, ‘Reforming Polarisation: Making the Market Work for Consumers’ (2002) Consultation Paper 121.

to improve competition between direct-sale providers. However, despite the criticism, the rule was maintained until 2005.[560]

6.4 Code of Conduct Rules

The key addition was the introduction of conduct of business rules, which provided a written foundation for conducting the investment business. The "New Framework" defined the code of conduct as rules which 'draw substantially on the law of agency'.[561] It may be argued that there was no necessity to duplicate the rules if they already existed in agency. However, Page and Ferguson highlight that 'the common law of agency is weakened by limitation for which conduct of business rules can compensate'.[562] They presented three points to show the deficiencies in of the common law. The first reason relates to enforcement. The law of agency is based purely on a private initiative by wronged clients. It can only work if the client is aware that he or she has been wronged and has sufficient resources to pursue the available remedies. On the other hand, the conduct of business rules are more civilly or administratively enforceable. The breach then may lead to a loss of authorisation to conduct the investment business.

The second point shows that the law of agency did not fully use potential in an investment context. This is clear as regards stockbroking from the limitation of the basic rules of an agent's duty of skill, care, and diligence in *Schweder v Walton.*[563] The frustration stemmed from the treatment of the stockbroker/client relationship in that the common law offers insufficient guidance and has not been recognised as a continuing agency relationship in the investment advice sphere, rather being regarded as a series of separate transactions. Thirdly, the situation in which the common-law rules, together with the conduct rules, will increase the value of protection for investors as previously they could easily be redefined by contract. Conduct rules established under the FSMA 2000 and imposed by the FCA, take precedence and provide mandatory protections for investors, whereas traditional common law rules could be altered or overridden by agreement between parties. This allows for a situation where investor protection might be diluted through contractual terms. FSMA 2000 in respective sections present the importance of consumer protection as a statutory objective of the FCA and outline the duty of the FCA to ensure appropriate conduct standards to protect interest of investors, even

[560] House of Commons Library, 'Polarisation, Briefing Paper No. 00792' (n 554) 3–5.
[561] SIB, 'Regulation of Investment Business: The New Framework' (1985) Para 3.30.
[562] Alan C Page and Robert Ferguson, *Investor Protection* (Weidenfeld and Nicolson 1992) 16.
[563] *Schweder v Walton* (1910) 27 T.L.R. 89.

when private agreement might seek to limit liability.[564] The new conduct rules also highlight the importance of the fiduciary relationship.

The increasing necessity to minimise market failures such as information asymmetry, led to the introduction of the Conduct of Business Code under the FSA 1986, which primarily aimed to protect retail investors. As Moloney states, 'protection is necessary only where market failures, primarily related to information asymmetries, arise'.[565] Hence, the primary foundation for all the rules created will be effective disclosure found in securities regulations. What is meant by this is that information regarding terms, risks, and issuer need to be communicated to potential investors. On the other hand, there are limitations on disclosure[566] in that some investors may have low financial literacy which can lead to poor decision making. Conduct of Business Code contains a number of basic principles to ensure that investors are treated fairly by the firms with which they do business. The rules have provided the foundation for the establishment of a sound relationship between advisor and investor.

Schedule 8, paragraph 1 of the 1986 Act, states that all rules and regulations 'must promote high standards of integrity and fair dealing in the conduct of investment business'.[567] The following statutory principles apply to the authorised person (inc. firms) required to act with skill, care, and due diligence and to act fairly in dealings with clients. Moreover, firms need to be fiduciary in any services provided to their clients unless there is a clear understanding on both sides that there is a different form of relationship between them. The famous statement by Professor Gower comes to mind, he said: 'once an agent, always fiduciary'.[568] Additionally, a proper provision for disclosure was required, together with keeping proper records for audit purposes.[569] Another important rule introduced by the Conduct of Business Code is "KYC", stated as the 'know-your-customer' rule to help identify the type of investor. It was also a form of customer protection as an investment recommendation could not be made if was not suited to the client's expectations and personal or financial situation. To minimise any possible conflict of interest, firms were obliged to put clients' interests above their own and to follow instructions provided by clients. However, this rule could be limited in some circumstances.[570] Another rule related to the disclosure of commissions paid to

[564] Financial Services and Markets Act 2000 pt 1A s. 1A-1EB.
[565] Moloney (n 89) 46.
[566] ibid 68.
[567] Financial Services Act 1986 Schedule 8, para 1.
[568] SIB, 'Regulation of Investment Business: The New Framework' (n 561) 26.
[569] Financial Services Act 1986 Schedule 8, para 2–12.
[570] The situation does not apply when: 1) there is a price limitation on the unexecuted instruction and the proposed dealing is at a price beyond the limit; 2) the unexecuted instruction cannot be executed immediately; 3) the firm is a recognised market maker in the investment; 4) a Chinese Wall exists in the firm preventing the conflict with which the rule is concerned; 5) acting collectively for the customer and the firm or other customers is to the benefit of all. Financial Services (Conduct of Business) Rules 1987 r 5.15.

intermediaries to show transparency in financial transactions.[571] The relationship between private investors and advisors was based on clarity of the advisor's status and trust in the product he or she offered. Further, if the firm is dealing with ordinary investors, it is obliged to provide the best advice. Exemptions can apply if the investor is classified as a professional, a business, or an experienced investor, then the firm may exclude the rule of the best execution. Moreover, firms have been obliged to provide a client with a very detailed customer agreement that must be signed before any service will be provided. The agreement contained a description of the service offered, investment objectives based on the client's expectations, and calculation of fees. In the case of experienced/professional investors, a "terms of business letter" was provided which contained less detailed information than given ordinary investors.[572]

It is worth noting that the 1986 Act required that all members providing investment business must be 'fit and proper person to carry on investment business of that kind'.[573] Moreover, one of the SROs set out the criteria of what can be regarded as "fit and proper". In the main, it focused on appropriate experience and educational qualifications for individuals providing financial advice.[574] Also, in 1993 FIMBRA and LAUTRO introduced mandatory training for their members. It was done by FIMBRA in the form of a Financial Planning Certificate for all registered individuals providing investment advice. This step was introduced in light of concerns which arose in the retail market regarding unsuitable advice offered to investors.[575] Most of the clients were not able to identify their needs and understand how the financial system works, including the financial products. Under the FSA 1986, there were number of basic principles on how to present advice to clients. One of them required the advisor to take a "reasonable steps" when giving the advice 'in a comprehensive and timely way' with 'any information needed to enable him to make a balance and informed decision'. Another, required that an independent financial advisor recommend "suitable" advice and help select product providers offering the best product for the clients. Third, "tied" advisors were obliged to recommend suitable products from their company's range of products.[576] Further, acting with skill, care, and due diligence should be a priority for all firms. Any conflict of interest needs to be avoided, but if it occurs, all consumers should be treated fairly. Additionally, firms are not allowed to place their interests above their clients.[577]

[571] ibid 5.13.
[572] ibid 3.
[573] Financial Services Act 1986 Schedule 2, para 1.
[574] Stuart Willey, 'The LAUTRO Rules: Training and Competence' (1993) 1 Journal of Financial Regulation and Compliance 292.
[575] Maximilian JB Hall, 'The PIA: Stop Gap or Lasting Solution?' (1994) 2 Journal of Financial Regulation and Compliance 286.
[576] Chris Marshall, *Life Assurance & Pensions Handbook* (22nd edn, 2006/07, Taxbriefs 2006).
[577] SIB, 'Principles and Core Rules for the Conduct of Investment Business' (1991).

In 1997 the SIB was renamed the Financial Services Authority ("FSA") and a single regulatory regime was introduced.[578] The new super-regulator was responsible for the supervision and authorisation of financial firms and professionals. Additionally, it covered the supervision of clearing and settlement systems and financial markets.[579] The aim of concentrating regulation within a sole body was intended 'to make the system more comprehensible for investors and to reduce the risks and costs of regulatory gaps and overlaps'.[580]

6.5 The new approach and regulations

As noted above, the previous regulatory framework was heavily criticised.[581] According to Hamilton, regulations under the FSA 1986 Act were not sufficiently robust and flexible to cope with the changing financial environment.[582] As was stated in a Consultation Paper, 'the Government believes the current system is costly, inefficient and confusing for both regulated firms and their customers. It is not delivering the standard of supervision and investor protection that the public has a right to expect'.[583] The call for a new regulatory system followed a series of mis-selling pension scandals[584] between 1988 and 1994, impacting over two million investors.[585] It was found, that the major factor in the scandals was inadequate rules regarding the supervision of the sale agent.

Reshaping of financial services took effect in 1999 with the introduction of the Financial Services and Markets Bill ("FSMB"). The new regulation replaced a system of self-regulatio[586] and introduced statutory regulation with a single regulatory body. The new structure retained some features of the previous system, such as the independence of the government and close cooperation with the market. As the FSMB was adopted, the new provision of financial advice was introduced in December 2001 under the Financial Services and Markets Act 2000 ("FSMA"). The new Act replaced the FSA 1986[587]

[578] The rationale for introducing a single regulator was included in HM Treasury, 'Financial Services and Markets Bill: A Consultation Document' (1998).
[579] Hall (n 539) 97–98.
[580] House of Commons, Financial Services and Markets Bill [Bill 121].
[581] For example: Andrew Large presented his "personal review" of the regulatory framework in his work - SIB, 'Financial Services Regulation: Making the Two-Tier System Work' (1993). He identified a number of weaknesses in the regulatory regime including a lack of clarification in objectives presented in the FSA 1986 Act and the treatment of self-regulation as a form of self-interest.
[582] Jenny Hamilton, 'Regulation of Financial Services' in Laura Macgregor, Tony Prosser and Charlotte Villiers (eds), *Regulation and markets beyond 2000* (Routledge 2018).
[583] HM Treasury, 'Financial Services and Markets Bill: A Consultation Document' (n 578) pt 1.
[584] Julia Black and Richard Nobles, 'Personal Pensions Misselling: The Causes and Lessons of Regulatory Failure' (1998) 61 The Modern Law Review 789.
[585] George Alexander Walker and Robert L Purves (eds), *Financial Services Law* (3 rd edn, Oxford University Press 2014) 792–794.
[586] Some components of self-regulation were not completely abandoned under FSMB such as involvement of practitioners through the Practitioner Forum. See FSA, 'Consultation Paper 2, Practitioner Involvement and the Treasury Progress Report on FSMB'.
[587] Walker and Purves (n 585) 743.

but retained the authorisation rules for regulated activities. The rules relate to specified types of activity, including an investment of a specified kind.[588] Advising on investment was one of these, as it is classified as a specified activity where advice is given by the agent to the investor or potential investor. There is also generic investment advice given in magazines, newspapers, journals, and other publications. However, this one is excluded under the Regulated Activities Order 2001[589] and not treated as regulated activity as it does not encourage people to invest in securities. Overall, the FSMA contained the basic, statutory framework for financial regulation, leaving the power to the regulator.

Another element moved from the FSA is the private individual's ability to take action in damages if he or she suffers loss as a result of contravention.[590] An example can be found in *Spreadex Ltd v Sanjit Sekhon,*[591] a case involving "spread betting". Although the court found the company liable for the deterioration in Sekhon's financial position, it also found that there had been contributory negligence regarding the deterioration of 85% on the part of the client (Sekhon) for which he was liable. However, section 150 did not prove popular among investors for two main reasons. First, it only applied to private investors; and second, the plaintiff was required to show both that there had been a breach of the rule, and the nexus between the breach and the loss. This remedy is not the only form of legal action available. Actions can also be founded in negligence, contract, or breach of fiduciary duty. The regulatory rules are not co-extensive as was shown in *Gorham & Others v British Telecommunications.*[592]

6.5.1 Depolarisation

Soon after 2005, polarisation was replaced by a new rule that offered advisors greater flexibility in choosing their regulatory status. The so-called "disclosure philosophy" was chosen by the FSA, and the financial advisor was required to disclose his or her status to the client in advance and agreed that he or she could operate in more than one style. The FSA also introduced the concepts "scope of advice" and "range of products".[593] This meant that persons selling investment products could choose products from:

- The entire market, where the independent financial adviser is required to offer also a fee-based payment option to clients as an alternative to commission payments by product providers.

[588] Financial Services and Markets Act 2000 s 22(1) para (a).
[589] Financial Services and Markets Act 2000 (Regulated Activities) Order 2001.
[590] Financial Services and Markets Act 2000 s 150.The others include ss 20(3), 85(4), 202(2).
[591] *Spreadex Ltd v Sanjit Sekhon* (2008) EWHC 1136.
[592] *Gorham v British Telecommunications Plc* (2000) 1 WLR 2129.
[593] FCA Handbook COB 5.1.6A.

- The limited number of providers (multi-tied).
- A single product provider (tied).

The advisors could also advice with a different scope to different customers. This meant that a single firm could offer the full market scope to its "high net worth" customers but a limited scope to others. It allowed advisors greater resilience in delivering financial advice to customers and placed private investors in more secure positions. In addition, a few new documents were introduced. First was the "Initial Disclosure Document" which covered the three types of advice above and provided a focus on the status of the advisor. It included the terms of business. Second was the "Key facts document" which contained detailed information about the service provided. There was also "the Menu" described as "a guide to the cost of our service" which detailed the cost and charges for the services offered, including information on whether the payment is by fee, commission, or a combination of the two. A further change resulting from depolarisation was the clarification that the FSA's role was not as a product regulator but rather as the institution that regulates and supervises the producers of the products.[594]

As we saw earlier, private investors often buy investments through agents rather than from representatives of product providers. The FSA set up the conduct of business rules for all these types of advice. However, there is no guidance on how these rules interact with the common-law rules of agency. Considering the legal side of the new types of advice on the ground of the principles of the law of agency, it can be said that in the case of the first two, the agent may be regarded as the customer's agent. However, where the adviser sells only the products of a single provider, it falls under the FSA conduct of business rules and cannot be recognised as an agent in the legal sense of the person who acts on behalf of the customers. This means that the adviser who has chosen a single provider is the agent of the provider not of the customer and common-law duties assigned to the agent need to be fulfilled for the provider.[595]

[594] Margarita Sweeney-Baird, 'The Structural Impact of Depolarisation and Its Historical Context' (2005) 6 Journal of Banking Regulation 301.
[595] The supporting view can be found in *Barnes & Anor v Black Horse Ltd* (2011) EWHC 1416 (QB). where HHJ noted Professor Finn's view 'that the mere giving of advice does not of itself import a fiduciary relationship' (para 17).

6.5.2 The review of retail distribution and further changes in standards for investment advice

Following the abolition of polarisation, the FSA began to focus on problems in the UK retail market. The issues were first highlighted by John Tiner in 2006 and followed by further changes by Calum McCarthy, then chairman of the FSA. He identified numerous defects in the distribution system for financial products regarding the price and sale of investment products.[596] These were accompanied by low levels of consumer capability[597] and mis-selling scandals. But the UK was not alone in its initiative. The markets in Canada, India, Australia, the United States, and Switzerland followed a similar approach to improve access to and distribution of financial advice.[598]

The main aim of the FSA was to build a retail market where 'consumers are capable and confident; information for consumers is clear, simple and understandable; firms are soundly managed, adequately capitalised and treat their customers fairly; regulation is risk-based and principles based'.[599] All these concerns were highlighted in the FSA's 2007 Review of Retail Distribution. The problems centred around the distribution of retail investment to retail clients. In particular, the charging structure in relation to complex products was unclear to investors. Those with limited financial knowledge and who were not regular purchasers of financial products could lose out on benefits. Consumers also relied heavily on the advice of financial advisors. The problem in this case related to commission offered by product providers to the advisors who chose their products. This situation was detrimental to consumers in that it encouraged financial advisors to prefer their remuneration over the best interests of their consumers. This, in turn, disturbed the balance between the interest of the consumers and the advisor and increased the risk of poor service. These commission-driven services led to inappropriate advice to consumers and chopping and changing products in search of higher commission. In addition, the cost of advice did not reflect the quality of the service offered and, with no specific qualification requirements for the advisors who could therefore operate freely with little training and experience, consumers were left without a full understanding of the risks, benefits, and cost of the service offered.

[596] FSA, 'Speech by Callum McCarthy on Balanced Regulation' (2006) <http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2006/0331_cm.shtml> accessed 10 April 2020.
[597] Personal Finance Research Centre, 'Levels of Financial Capability in the UK: Results of a Baseline Survey' (2006) Consumer Research 47 <https://www.bristol.ac.uk/media-library/sites/geography/migrated/documents/pfrc0602.pdf> accessed 10 November 2020.
[598] FSA, 'A Review of Retail Distribution, Annex 3 – International Comparison. Discussion Paper DP/07/1' <https://www.fca.org.uk/publication/discussion/fsa-dp07-01.pdf> accessed 10 November 2020.
[599] ibid 3.

Given all these factors, the FSA concluded that the market for retail investment did not work efficiently,[600] and in 2012 it resolved to amend the advisory status. In 2012 new and updated rules were implemented aimed at greater clarity on the service offered to the consumer. At this stage, firms were required to offer advice on retail investment products to retail clients based on new categorisation of advisory services as independent or restricted.[601]

The new standards for independent advice[602] required that advisors be able to offer all investment products available in the retail market[603] which were capable of meeting the investment needs and objectives of the retail client. One of the requirements for independent advice was that personal recommendations had to be based on a comprehensive and fair analysis of the relevant market and be unbiased and unrestricted.[604] Moreover, advisors were prohibited from restricting their advice to the products offered by product providers, and "packaged products" changed their form to "retail investment products" with an extended list of retail investment products falling under a new rule.
The second form of advice – restricted advice – is advice that fails to meet the standard for independent advice[605] or is recognised as basic advice. Despite some differences, such as disclosure standards that had to be presented to the client in both writing and oraly and which explained the nature of the restriction, the restricted advice had to follow the same suitability, inducement, professionalism, and adviser cost standards as independent advice.

"Basic advice" is an example of this restricted advice and falls under the Conduct of Business Rules. It is defined as 'a short, simple form of financial advice which uses pre-scripted questions to determine whether a stakeholder product within a firm's range will be suitable for a customer.'[606] Currently the basic advice regime and "stakeholder" products remain relevant but have been influenced by the implementation of MiFID II and Insurance Distribution Directive (IDD). Under MiFID II the scope of the regime has been limited as firms providing advice on stakeholder products must comply with suitability rules, which is more challenging for the firms. Similarly, under the IDD.

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[600] ibid 4.
[601] FSA, 'Retail Distribution Review: Independent and Restricted Advice. Finalised Guidance' (n 51).
[602] FSA Handbook defines "independent advice" as 'a personal recommendation to a retail client in relation to a retail investment product where the personal recommendation provided meets the requirements of the rule on independent advice, FSA Handbook COBS.6.2A.3R Dated on 2012/12.
[603] Retail Investment Products per the COBS 6.2A.1R dated 2012/12 defined as a life policy; a unit; a stakeholder pension scheme; a personal pension scheme; an interest in an investment trust savings scheme; a security in an investment trust; a structured capital-at-risk-product; another designated investment which offers exposure to underlying financial assets, in a packaged form which modifies those exposures when compared with a direct holding in a financial asset. Hence, it is worth noting that the RDR rules do not cover all investment products available in the UK. Products not covered under new regulation include: shares in an individual company, mortgages, bonds and individual derivatives.
[604] FSA Handbook COBS 6.2A.3R.
[605] FSA Handbook defines "restricted advice" as 'a personal recommendation. To a retail client in relation to a retail investment product which is not independent advice; or basic advice' ibid COBS.6.2A.5R Dated on 2012/12.
[606] FSA, 'Retail Distribution Review: Independent and Restricted Advice. Finalised Guidance' (n 92) 8–10.

However, the regime is still applicable for non-MiFID stakeholder products such as pension schemes. These changes reflect evolving regulatory priorities, aiming to enhance investor protection.[607]

Further, "simplified advice" was also recognised as restricted advice. However, it is not defined in the FSA Handbook and does not apply to all retail investment products. The aim of creating this form of advice was to offer simplified advice to consumers with "straightforward" needs. It was also defined as a streamlined advice process, which appears to be mostly an automated process and meets the disclosure standards for restricted advice. Comparing with basic advice, simplified advice provides more tailored recommendations for specific needs and can cover a broader range of financial products, whereas basic advice is based on simple financial products without taking into consideration the full analysis of the client's broader financial circumstances.

The situation also changed for the principal firms and appointed representatives ("ARs") known as "tied agents". ARs were created as part of the FSA 1986 and subsequently carried over to the FSMA 2000.[608] ARs are persons or firms that conduct certain regulated activities on the behalf of an Authorised Firm (referred as Principal) under an agreement. They are engaged on a contract-for-services rather than an employment contract and work for the principal (company) but through a separate business. Despite this, the principal must assume responsibility for actions of the AR. ARs are also exempt from seeking direct authorisation under the FSMA 2000, as they operate under the authorisation of the Principal firm, and are not subject to the FSA Rulebook.[609] However, principal firms who appoint ARs must ensure that their ARs meet the standards set for independent advice.[610] Additionally, firms may opt to use of a number of advice tools (platforms, panels) and investment strategies (model portfolios, discretionary investment services) to help clients manage their investments, or may choose to work with third-party providers to deliver services on their behalf.[611] The FSA also introduced the two specialist activities of advising on pension transfers and opt-outs, and on long-term care insurance contracts.[612]

[607] FCA, 'The Basic Advice Regime under MiFID II & IDD' <https://www.fca.org.uk/firms/basic-advice-regime-mifid-ii-idd> accessed 10 October 2023.
[608] See Financial Services and Markets Act 2000 s 39. and Financial Services and Markets Act 2000 (Appointed Representatives) Regulations 2001.
[609] Iain G MacNeil, *An Introduction to the Law on Financial Investment* (2nd edn, Hart 2012) 210–211.
[610] FSA, 'A Review of Retail Distribution' (n 72) 10.
[611] FSA Handbook COBS 6.2A.20G Dated on 2012/12. 'If a firm chooses to use a third party to conduct a fair and comprehensive analysis of its relevant market, the firm is responsible for ensuring the criteria used by the third party are sufficient to meet the requirement'.
[612] FSA, 'A Review of Retail Distribution' (n 72) 14–16.

As the final change, the FSA abandoned the remuneration of advisors in the form of commission payments. The main argument was a potential conflict of interest which could lead to providing unsuitable advice to consumers resulting in their financial loss. The FSA also considered the social aspect which could potentially have reduced trust in the investment sector. However, the rule has been applied only to a personal recommendation made to retail investors, so excluding professional clients and eligible counterparties. As a result, advisors are obliged to introduce and present their fees up-front to potential investors. The principles established by the RDR were later extended across the EU under the MiFID II. Similar rules regarding remuneration were introduced including the prohibition on inducements, which could compromise and have an impact on the quality of advice, as well as transparency rule, where firms must disclose all costs and charges associated with the investment services offered.[613]

The way of regulating financial advice has changed with the introduction of the RDR. Positive and negative aspects may be highlighted, such as improvements in the quality of the advice and service offered by financial advisors, better disclosure, and limiting conflicts of interest when delivering the advice. However, the point to highlight is that the new rules do not cover non-advised financial services – in other words execution-only forms of advice. This situation creates new forms of risk, such as shifting the scope of the advice to avoid the RDR's effects (such as the commission ban) and advisors not providing "regulated" advice. Moreover, if limited advice is provided to a private client this does not warrant the assumption that it was an execution-only service.[614] There is also a consequence for those who deal on an "execution-only" basis as rules of conduct do not apply and the retail client is without protection. This is what happened in *Wilson v MF Global*[615] where the defendant – a financial investment broker – was not held liable for trading losses suffered by his client who had entered into an "execution only" account in relation to the contract for differences ("CFDs"), futures, and options.

6.5.3 The Financial Advice Market Review

Despite the introduction of the RDR reforms in 2012, new challenges arose in the UK financial advice industry which necessitated a review of the current regulatory reform for financial advice. As a result, the Financial Advice Market Review ("FAMR") was published in March 2016. New challenges arose,

[613] Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on Markets in Financial Instruments and Amending Directive 2002/92/EC and Directive 2011/61/EU (recast) 2014 (OJ L 173/349) art 24 (8), 11(1), 25(2).
[614] *Loosemore v Financial Concepts* (2001) 1 Lloyd's Rep pn 235.
[615] *Wilson v MF Global UK Ltd* (2011) EWHC 138.

including the lack of affordable quality advice due to complex financial services and legislation, liability concerns and high compliance costs for advisors which resulted in limiting the range of products offered to customers, the necessity of clarification of the regulation for the digital financial advice, poor customer protection when dealing with the Financial Ombudsman Services, and uncertainty among employers as to the extent of guidance offered to employee on pensions. The main focus of the review was to find ways of boosting the development of a market which will deliver an affordable and more accessible form of advice and guidance to everyone at all stages of their lives. The review was adopted based on an increasing need for individuals to take greater responsibility for their own financial decisions and future. The increasing ageing population and social changes are factors that have an impact on decisions taken by individuals. Most of the decisions themselves have been made using the new technology as people are more aware of the cost of financial advice. Additionally, a mistrust of financial services may also be classified as the one of stimuli for them to invest on their own.[616]

The FAMR Report made a number of recommendations regarding the UK financial advice market. To consider the implementation of the recommendations the Financial Advice Working Group ("FAWG") was established.[617] The FAMR gave the Working Group three tasks:

- Recommendation 12 – to work with employers to develop and promote a guide to the top ten ways to support employees' financial well-being.
- Recommendation 17 – to publish a shortlist of potential new terms to describe "guidance" and "advice", with the final choice of words and approach to implementing them to be confirmed after market research and consumer testing.
- Recommendation 18 – to lead a task force to design and test a set of rules of thumb and nudges.[618]

One of the FAMR recommendations related to the "basic-advice" regime, introduced in April 2005, which allowed a firm to deliver cheaper forms of advice. It was based on low-risk investment products such as stakeholders' pensions and ISAs and charges were capped at a fixed level. The advisor was also not required to hold formal qualifications. Basic advice was created to help people receive advice on simpler needs without incurring the costs charged for full advice. However, basic advice had not

[616] HM Treasury and FCA (n 477).
[617] FCA, 'Financial Advice Working Group Established' (2016) <https://www.fca.org.uk/news/news-stories/financial-advice-working-group-established> accessed 10 November 2023.
[618] Financial Advice Working Group, 'Financial Advice Working Group – Foreword. Final Report for HM Treasury and the Financial Conduct Authority' (2017) <https://www.fca.org.uk/publication/research/fawg-final-reports-foreward.pdf> accessed 23 October 2021.

proved popular with many advisors regarding the service as uneconomical. They also highlighted their concerns regarding judging basic advice as full advice in the event of customer complaints to the FOS. This also had an impact on limiting more financial advice activities to the public by the firms.[619] Hence, questions arose regarding the public's understanding of the terms "guidance" and "advice".[620] The FAWG recommended that these two terms should be adopted in the financial advice industry and should be 'displayed side-by-side to allow comparison between the two services by consumer'.[621] Furthermore, the terms[622] should be mandatory for regulated entities and media should encourage non-regulated entities to treat them in the same way. Another issue highlighted by the FAMR as needing attention was the regulatory uncertainty arising from the financial "rules of thumb" and "nudges". 'The rule of thumb under the FAMR was described as a willingness to take higher financial risk at a young age and less in old age. "Nudges", on the other hand, are rules which prompt consumers to consider whether they have the financial products which fulfil their financial needs.[623] The FAWG Report presented the rule of thumb as 'a simple, broad principle that most people can use in thinking about their personal finances (eg, do not put all your eggs in one basket)'. A "nudge" is a timely prompt from a trusted source, designed to help an individual make financial decisions. The FRWG proposed the "Financial Five"[624] rules of thumb to help people meet their most common financial needs and raise their awareness about them.

The next recommendation sought to clarify the extent to which employers may provide financial guidance to their employees. In this regard the Working Group noted that the Pensions Regulator ("TPR") and the FCA were cooperating to develop a fact sheet not subject to the regulation.[625]
Here the question of automated advice services was highlighted in the review for the first time. A similar approach was taken in the case of addressing the regulatory uncertainties arising in the

[619] HM Treasury and FCA (n 477) 20.
[620] HM Treasury and FCA (n 477). The FAMR report presented different terms for "guidance" and "advice" based on Call for Input responses. For "guidance", suggested terms are: financial guidance, guidance without a personal recommendation, assisted self-help, general advice, financial help, and tailored information. For "advice" suggested terms are: financial advice, advice with a personal recommendation, specialist advice, regulated financial advice, professional advice, personal advice, and financial planning.
[621] Financial Advice Working Group, 'Consumer Explanations of "Advice" and "Guidance". Final Report for HM Treasury and the Financial Conduct Authority' (2017) <https://www.fca.org.uk/publication/research/fawg-consumer-explanations-advice-guidance.pdf> accessed 24 October 2022.
[622] The full explanation of the terms "guidance" and "advice" developed through consumer research undertaken by the FAWG can be found in Part 5: Recommendations – ibid 25.
[623] HM Treasury and FCA (n 477) 49–50.
[624] Financial Five rules of thumb proposed by the FAWG include: 1. Clean up your finances regularly, 2. Manage your borrowing, don't let your borrowing manage you, 3. Save when you can – even a little helps a lot, 4. Pile into your pension – it's your future income, 5. Other people get help to make the most of their money, so can you. – Financial Advice Working Group, 'Rules of Thumb and Nudges: Improving the Financial Well-Being of UK Consumers. Final Report for HM Treasury and the Financial Conduct Authority' (2017) <https://www.fca.org.uk/publication/research/fawg-rules-of-thumb-nudges.pdf> accessed 10 October 2021.
[625] Financial Advice Working Group, 'Financial Well-Being in the Workplace: A Way Forward. Final Report for HM Treasury and the Financial Conduct Authority' (2017) <https://www.fca.org.uk/publication/research/fawg-financial-well-being-workplace.pdf> accessed 12 October 2021.

automated robo-advice area. Increasingly the use of automated advice tools and new forms of technology emphasised the delivery of high-quality advice to consumers. The FAMR sought to support the development of a mass market for automation advice and saw in "robo-advisors" the potential to close the advice gap. The FCA has already started supporting new initiatives, primarily through the creation of the Innovation Hub and the Advice Unit, to assist firms to understand the environment and bring new technology models to the markets.[626]

At that time, the financial regulatory services were administrated by the FSA. However, after the Global Financial Crisis the function of the FSA was split. In 2013 the power was divided between the Prudential Conduct Authority ("PRA") – which assumed responsibility for the prudential regulation of the UK financial market – and the Financial Conduct Authority ("FCA") responsible for regulating the conduct of financial firms.[627] Under the general prohibition in the FSMA, 'no person may carry a regulated activity in the United Kingdom […], unless he is an authorised person [by the FCA] or an exempt person.'

The FSMA 2000 Act granted the FCA a wide range of services, ranging from making the rules, to issuing the guidance, and developing the codes to regulate financial markets in the UK. Hence, the mandatory rules or guidance may be found in the FCA Handbook which includes several blocks which, in turn, contain the sourcebooks. Additionally, the appointed representative form was carried over to FSMA 2000. According to the FCA, the appointed representative 'is a firm or person who runs regulated activities and acts as an agent for an authorised firm. This firm is known as the AR's "principal"'.[628]

To improve consistency within the investment industry, the FCA introduced their Training and Competence Sourcebook ("TC"), which sets out detailed requirements for certain retail activities, including the mandatory attainment of appropriate qualifications.[629] These qualifications range from certificates to postgraduate diplomas depending on the specified activities,[630] and need to be achieved within 48 months of starting to perform the regulated activity.[631] In relation to activities included in TC Appendix 1, the firm must not allow an employee to carry out the activities without appropriate

[626] HM Treasury and FCA (n 477) 39.
[627] Walker and Purves (n 585) 3–6.
[628] FCA, 'Principals and Appointed Representatives' (2015) <https://www.fca.org.uk/firms/appointed-representatives-principals> accessed 1 September 2021.
[629] FCA Handbook TC. Appendix 1.1 TC contains the list of 26 activities with the exceptions in TC App 2.1 and TC App 3.1
[630] ibid TC App 4.1 Appropriate Qualification tables.
[631] ibid TC 2.2A Time limits.

supervision.[632] However, the rules permit firms to allow employees who have not completed their qualifications to carry on their activities but within a limited range, such as giving personal recommendations on retail investment products to retail clients, or advising on P2P agreements.[633] Additionally, it is the firm's responsibility to check on a regular and frequent basis their employees' competence and training needs. The quality of the training also needs to be reviewed annually[634] and the firm is obliged to declare that for the last 12 months their advisors have complied with the Statements of Principle and Code of Practice for Approved Person ("APER"), or the Code of Conduct for Staff Sourcebook ("COCON").[635] As regards control, the FCA has extensive powers to investigate breaches and impose sanctions against a person who acted as a regulated person. Sanctions can range from temporary suspension of the performance of a specific activity-by being not 'fit and proper into the regulated function to a public censure.[636]

6.6 Markets in Financial Instruments: Directives I and II

A significant change in the financial market came with the introduction of the Markets in Financial Instruments Directive, 2004 ("MiFID").[637] The directive was designed to build better harmonisation across the European Union with a focus on investor protection. 'One of the main objectives of MiFID is to provide a high level of investor protection' as the FSA stated in the Consultation Paper.[638] In the UK, the directive was introduced in 2007 and replaced the Investment Services Directive. The implementation of EU directives can take the form of primary legislation (Act of Parliament) or of statutory instruments ("Sis"). For some financial directives – in this case the MiFID – power was given to the FSA and HM Treasury to incorporate directive provisions. The whole framework was transposed and implemented in the UK using a combination of the FSA Handbook Rules and Treasury-drafted legislation. When MIFID came into force in 2007, voices were raised across the financial industry claiming that it was "incomplete". This led to a revised version ("MiFID II"). In the interim, the markets were hit by the "financial crisis" which also had an influence and prompted regulators to reassess how to improve investor protection. MiFID II was implemented in 2018.[639] At

[632] ibid TC 2.1.2 R.
[633] ibid TC 2.1.9 R.
[634] ibid TC 2.1.11 G-2.1.12 R.
[635] ibid APER and COCON.
[636] Financial Services and Markets Act 2000 ss 56; 206-206A.
[637] MiFID I. The directive was created at the European level by the European Parliament and Council of the European Union in 2004, however its implementation did not take place until 2007.
[638] FSA, 'Reforming Conduct of Business Regulation, Consultation Paper 6/19 (Including Proposals for Implementing Relevant Provisions of the Markets in Financial Instruments Directive, and Related Changes to SYSC, DISP, TC, SUP and Other Handbook Modules)' 9 <https://webarchive.nationalarchives.gov.uk/ukgwa/20100303202331mp_/http://www.fsa.gov.uk/pubs/cp/cp06_19.pdf > accessed 2 April 2021.
[639] MiFID II.

the same time HM Government issued "Transposition Guidance" which specified points regarding the effective implementation of European Directives. These stated that the government would ensure that the UK does not go beyond the minimum requirements of the measure which is being transposed, UK businesses will not be put at a competitive disadvantage compared with European counterparties, seek to implement EU policy through the use of alternatives to regulation, and always use copy-out approach for transposition where is possible, except where doing so would adversely affect UK interests.[640] Later, with the withdrawal of the UK from the European Union, amendments needed to be put in place by the FCA Handbook instruments to "onshore" the rules to reflect the change. The FCA Handbook played a key role in adjusting and ensuring that the UK's version of MiFID II continue to operate effectively despite the UK no longer being subject to EU laws.

6.6.1 Overview of Directives

The main aim of MiFID was to harmonise the rules applied to financial services across Europe and improve advisors' status in the securities market by increasing market transparency and investor protection. Improved competition within the market was also one of the key objectives. The MiFID's rules apply to financial instruments and primarily to investment firms, which include investment banks, broker-dealers, investment advisors, stockbrokers, and corporate finance firms. Retail banks and building societies need to apply MiFID only in certain parts of their business within the scope of MiFID, primarily related to selling securities and providing investment advice.[641] MiFID also distinguishes between core services (investment services and activities) and non-core (ancillary) services. Under the new rules, the investment firms could be exempted from the MiFID regime if they comply with the requirements in article 3 of MiFID – ie, if they do not hold any client's funds or securities and if they are limited in offering the transmission of orders in transferable securities and units in collective investment undertakings, and the provision of investment advice in relation to financial instruments. In this situation, exempted firms (mainly small financial advisers) fall under the rule of the FSMA 2000. They may benefit from lower regulatory costs but are excluded from "passporting" rights with other member states. In the FSMA, the definition of "investment advice' was extended to include "personal recommendation". In addition, advice services could be provided in other EEA states under the passport rules.[642]

[640] HM Government, 'Transposition Guidance. How to Implement European Directives Effectively' <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/949143/withdrawn-eu-transposition-guidance.pdf> accessed 10 February 2022.
[641] Victoria Stace, 'New Zealand's Financial Adviser Regulation – Falling Behind in the Wake of Overseas Reforms' (2015) 26 New Zealand Universities Law Review 1, 3.
[642] Matilda Walker and Simon Allport, 'Report from the United Kingdom' (2008) 5 European Company Law 99.

Firms are further required to be authorised and regulated in their home state. MiFID also contains a number of regulatory requirements such as transparency, disclosure within the organisational structure, and compliance. Firms are required to establish adequate procedures to minimise risk and recognise conflicts of interest between firms and clients.

The directive also covers the conduct of business requirements, which are presented in greater detail in the MiFID Implementing Directive.[643] The principles for business provide a general statement of fundamental rules that firms need to observe. They apply in whole or in part to the firm, depending on the forms of business it provides. The Conduct of Business provides information on how transactions with retail investors should be conducted. Back in the day, the FSA 1986 Act, as well as the FSMA 2000 Act, treated private investors and professionals differently. This was highlighted in section 156(1) of FSMA 2000 which states that: 'Rules made by the Authority may make different provision for different cases and may, in particular, make different provision in respect of different descriptions of an authorised person, activity or investment'. [644] MiFID introduced client classification, dividing clients into retail clients, professional clients, and an eligible counterparty. From the FCA perspective, retail clients require more protection than professional clients as they are more affected by information asymmetry problems. In the FCA Handbook, a retail client is 'a client who is not a professional client or an eligible counterparty'.[645]

Rules in the COBS are linked with client classification and relate to dealing "with" and "for" clients. Treatment differs for each category based on the information provided, assessment of suitability or the appropriateness of the service provided, duty to act in the best interests of the client, reporting requirements, and contractual documents provided to the clients. As stated above, retail clients receive greater protection than professional clients as they have less expertise and experience in financial markets. Further, the firm is obliged to inform the client of the category in which it falls. Additionally, in the case of professional clients, application for re-classification is possible if the requirements are met.

When it comes to dealing "with" clients, firms are obliged to enter into written basic agreements with retail clients. Further, communication with clients must be fair, clear, and non-misleading. [646]

[643] Commission Directive 2006/73/EC of 10 August 2006 implementing Directive 2004/39/EC of the European Parliament and of the Council as regards organisational requirements and operating conditions for investment firms and defined terms for the purposes of that Directive (OJ L 241/26).
[644] Financial Services and Markets Act 2000 s 156 (1).
[645] FCA Handbook COBS 3.4 Retail Clients.
[646] ibid COBS 4.2 Fair, clear and not misleading communications.

Information about the nature and characteristics of financial instruments and the associated risks must be provided together with the costs and fees for the services offered.

The second category – dealing "for" clients – reflects the agent's duties to the clients and could be described as the articulation of the common-law duties of an agent to his or her principal. "Best execution" of the financial transactions is one of these duties. The agent works on behalf of the client and is obliged to take "all reasonable steps" to achieve the best results for the client. MiFID II amended the requirement to read "all sufficient steps" in the execution of the order to the clients.[647] Another duty reflects "order handling", and the firm is required to have an order execution policy in place.

The Conduct of Business principles are treated as a key objective of the MiFID and include:

1. Principle to act honestly, fairly, and professionally. As per above, it applies to the best execution of client's interest and requires the best approach from the advisor.[648]
2. Principle to identify and manage potential conflicts of interest to the clients.[649]
3. The principle to address in a clear and transparent way the information to the clients, without misleading statements.[650]
4. Principle to disclose necessary information to the clients, including services offered, associated costs, and information related to any intermediary provider.[651]
5. Principle to provide suitable advice. The firm should be able to collect all necessary information about the client, such as financial situation, investment expectations, and financial risk. The accumulation of the client's information will help the financial advisor to provide suitable advice to his or her clients.[652]
6. Principle of best execution. Financial advisors and intermediaries need to ensure that all orders should follow all reasonable steps to provide the best results for the client.[653]

The principles in MIFID are part of more detailed principles in the COBS. One of them is the fair, clear, and non-misleading rule.[654] It could be said that this rule overlaps with the common-law concept of misrepresentation. The liability here may arise under the same circumstances for both parties.[655]

[647] ibid COBS 11.2A.2 (1).
[648] MiFID I art 19(1).
[649] ibid 18.
[650] ibid 19(2).
[651] ibid 19(3).
[652] ibid 19(4).
[653] ibid 21.
[654] FCA Handbook COBS 4.2.
[655] *Black Horse Ltd v Speak* (2010) EWHC 1866 (QB).

However, retail investors should be aware that in case of the breach of a regulatory rule, redress can be sought from the FCA or the Financial Ombudsman at no cost. Additionally, the court in *Esso Petroleum Co Ltd v Mardon* case[656] took the view that the experience of the customers will be considered a key point in determining whether the rule was breached. In the case of *Maple Leaf Macro Volatility Master Fund v Rouvroy and Trylinski*[657] the court held that the rule of misrepresentation had not been breached.

Another important rule is suitability, more precisely expressed by COBS 9. It states that:

> 'A firm must take reasonable steps to ensure that a personal recommendation, or a decision to trade, is suitable for its client. When making a personal recommendation or managing investments, the firm must obtain the necessary information regarding the client's, including knowledge and experience in the investment field relevant to the specific type of designated investment or services; financial situations; investment objectives'.[658]

However, as the above scope refers only to personal recommendations, it will apply to the financial advisor who offers it regardless of the regulatory status. Another issue it that of "reasonable steps" that a firm must take to ensure that a recommendation will be suitable for the clients. On the one hand, the firm has a duty to collect the necessary information about the client's interests, experience, and financial situation. But the firm is also obliged to provide full disclosure about services, fees, and commissions in good time but before a personal recommendation can be made to the client.

The above principles play an important part in delivering suitable advice to clients; however, the core requirement applies to work in the "best interests" of the client. This rule has its foundation in the common-law of fiduciary obligation. It is also recognised as a key principle although it remains uncertain whether it creates the fiduciary relationship between advisors and clients and, if indeed so, the precise content of the duty.[659]

In January 2018, eleven years after MiFID I, MIFID II was introduced. The key European Commission objectives were to strengthen investor protection through rules on appropriateness and suitability, including to standardise practise across the EU and to reduce unnecessary costs for participants. As a consequence of the UK's withdrawal from the European Union, UK MiFID took effect on 31 December 2020.

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[656] *Esso Petroleum Co Ltd v Mardon* (1976) QB 801.
[657] *Maple Leaf Macro Volatility Master Fund v Rouvroy and Trylinski* (2009) EWHC 257.
[658] FCA Handbook COBS 9.2.1R Assessing suitability: the obligations.
[659] John Kay, 'The Kay Review of UK Equity Markets and Long-Term Decision Making: Final Report' (2012) para 9.2 <https://assets.publishing.service.gov.uk/media/5a7cccdbed915d6b29fa8bea/bis-12-917-kay-review-of-equity-markets-final-report.pdf> accessed 15 February 2021.

6.7 Overview of the conduct rules and application of the current regime for financial advisors

Conduct rules typically refer to a set of regulatory rules or principles that govern the behaviour and conduct of individuals working in the financial services industry. The regulator was granted the power to issue not only rules but also guidance. Rules are enforceable and apply to financial institutions that conduct regulated activities, whereas guidance provides information and advice; but has no formal legal status. Both the guidance and, the principles have been included in the Handbook. Together they represent a general statement of obligations governing financial institutions. They differ from the rules in that they define the required outcome but do not describe how this can be achieved.[660] Principals are a high standard rule, and either can be used as a boundary for the application of the rules, or can be applied if there is no rule. The history of conduct rules can be traced back to the FSA 1986, where in the draft rules "conduct of business" requirements for financial advice were introduced. The aim of the FSA 1986 was also to increase a firm's level of responsibility while providing advice.

The COBS rules advanced principles of customer protection by obliging firms to collect information about customers, provide the best advice, disclose any conflicts of interest, and provide a detailed customer agreement.[661] These rules were preserved under the FSMA 2000 and gave even more power to the new regulator – the FSA, successor to the SIB. An important power was the ability to issue statements of principle and expand on them in the Code of Practice. Failure to comply could result in a finding of misconduct or be subject to action by the FSA – eg, a financial penalty or public disclosure of the firm's misconduct.[662] In addition, the FSA was empowered to prohibit any individuals who were "not fit and proper" from performing as financial advisers. As noted by Scott and Black:

> 'Financial Advisors are required to advise on and recommend only investment products that are suitable for the consumer. The duty is coupled with a requirement that the advisor "know the customer" […]. The suitability and know-your-customer rules are central planks in the investor protection regime and have been linked to the "fitness for purpose" standards that apply in the sale of goods'.[663]

The FSMA 2000 introduced the new basic framework of the UK's financial regulation and created two new regulators: the FCA and the PRA. It has been said that the FSMA 2000 as amended is the

[660] Walker and Purves (n 585) 223.
[661] Barnard (n 541) 351.
[662] Financial Services and Markets Act 2000 s 66 (1), (2), (3), Explanatory Note to FSMA 2000.
[663] Colin Scott, Julia Black and Ross Cranston, *Cranston's Consumers and the Law* (3rd edn, Butterworths 2000) 210.

skeleton of the UK regulations to which regulators will add the muscles.[664] The FCA created the pack of regulatory requirements called the "COBS" based on the FCA Handbook. COBS, in general, reflect the different stages of a firm's relationships with clients. One of the main points in the conduct rules oversight is the impact of the 2006 UK Retail Distribution Review and the situation associated with the global financial crisis. Both highlighted the need for urgent reforms in the retail investment markets. The recommendation regarding new reforms was pointed out already before the global financial crisis by the FSA (the FCA's predecessor), with a focus on the commission payable for financial advice. Most often, the adviser's interests were closer to those of the provider than to the retail clients. Product providers would pay the commission to the advisers for arranging for the clients to invest in their products. Commission values differed depending on the products offered and advisers frequently offered the one which paid them the highest commission. In this situation, clients received "free" investment advice. But they often also received poor quality financial advice which delivered negative outcomes. Mistrust was driven by advisors not acting in the best interests of their clients. The RDR 2006 recommendation in this regard focused on eliminating commission-based payments in favour of a new adviser charging model. Finally, in 2013, the ban on commission was implemented in COBS under Rule 6.1A.4.[665] With the implementation of MiFID requirements, the FCA Handbook was updated to reflect more principle-based regulations. Firms should follow and read the rules and guidelines in accordance with the FCA's Principles of Business ("PRIN"). The principles create the fundamental obligations that firms must meet in the day-to-day conduct of their business. They form the foundation for the FCA's supervisory activities and enforcement actions. The principles mandate firms to adopt higher standards while granting them flexibility in determining how to meet these standards. Measures taken by the firms should be proportionate to the risks. Mark Steward has stated that principles are the 'foundation of good conduct'[666] and should be an essential part of the firm's operational and decision-making process at all levels. The latest principle introduced by the FCA is the "consumer duty"[667] which is recognised as a further stage in the evolution of principles.[668]

In sum: the conduct of business rules aims to establish the framework that guides the behaviour of firms. They covered different areas including disclosure requirements, ethical standards, and fair treatment rules. Overall, they seek to foster a trustworthy business environment, increase consumer

[664] Charles Abrams, 'A Short Guide to the Financial Services and Markets Act 2000' [2000] Sweet and Maxwell 5.
[665] FCA Handbook COBS 6.1A.4R.
[666] FCA, 'Penalties, Remediation, and Our General Principles. Speech by Mark Steward, FCA Executive Director of Enforcement and Market Oversight, Delivered at the City & Financial Global Ltd Event' (February 2020) <https://www.fca.org.uk/news/speeches/penalties-remediation-and-our-general-principles> accessed 1 April 2022.
[667] FCA Handbook PRIN 2.1. The Principles, No. 12 Consumer Duty.
[668] FCA, 'Consumer Duty Sets Higher Standards for Financial Services Customers' (n 409).

protection, and ensure the integrity of the financial markets. Financial advisors are also covered by COBS, and there are a few conduct rules that play a significant role in financial advice regimes. These are considered further below.

6.7.1 The suitability rule

One of the important rules in a financial advice regime is the suitability rule. It is treated as a crucial element of the regulatory framework not only in the UK but in most Anglo-American jurisdictions.[669] The rule already existed before the global financial crisis. It pointed out that one of the firm's obligations was to 'take reasonable steps to ascertain from its customer such facts about his personal and financial situation […] to the proper performance of services for him'.[670] Even though the specific term "suitability" was not used, the draft rule represents an early form under the UK law. Further, the suitability requirement appeared in Principle 9 in the FSA's Principles of Business. Under the section 'Customers: relationship of trust', the principle stated that: 'a firm must take reasonable care to ensure the suitability of its advice and discretionary decisions for any customer who is entitled to rely upon its judgment'.[671] An additional step was the introduction of an initiative called Treating Customers Fairly. It consisted of six outcomes where number four stated: 'where consumer receive advice, the advice is suitable and takes account of their circumstances'.[672] Next, with the implementation of MiFID I in 2007, the FSA requested to implement the suitability rule using terminology from MiFID I.[673] Article 19(4) of MiFID I required that when investment advice is provided, the firm must obtain the necessary information before recommending investment services or financial instruments as suitable for clients. Generally, the suitability requirement was not recognised as a regulatory rule until the introduction of MIFID I as mentioned above. MiFID II endorsed the importance of the suitability assessment and expanded the suitability obligations. Additional requirements were added for firms to take risk and client profiles into consideration when giving advice. MiFID I contained only the requirement that the advisor consider the 'client's financial situation and his investment objectives',[674] whereas new provisions were added in MiFID II to consider his or her 'financial situation including his ability to bear losses, and his investment objectives including his risk tolerance'.[675]

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[669] A similar approach is already applied in the USA where the adviser has the duty to provide only suitable advice, and in Australia where the provider is obliged to provide appropriate advice to the client. See Corporations Act 2001 s. 961G.
[670] Barnard (n 541) 351.
[671] The same reflection of principle exists today in the FCA Handbook PRIN 2.1.
[672] FSA, 'Treating Customers Fairly – Toward Fair Outcomes for Consumers. Discussion Paper' <https://www.fca.org.uk/publication/archive/fsa-tcf-towards.pdf> accessed 10 March 2021.
[673] FSA, 'Responsibilities of Providers and Distributors for the Fair Treatment of Consumers: Feedback on DP06/4' <https://www.isda.org/a/DxKDE/ps07_11.pdf> accessed 10 March 2021.
[674] MiFID I art 19 (4).
[675] MiFID II art 25 (2).

There was no exemption for the use of electronic systems such as robo-advice. As an addition, firms were required to 'provide clients with a statement on suitability' – known as the "suitability report".[676] All these new requirements have been added as Chapter 9 in the COBS. The position did not change during the Brexit situation when the transition phase ended in December 2020. Currently, the UK applies almost identical post-Brexit UK MiFID equivalents.[677] For firms providing investment advice or portfolio management in the course of MiFID, equivalent third country or optional exemption business, or in relation to an insurance-based investment product, COBS Chapter 9A applies.[678]

The suitability requirements under MiFID II apply to the providers of investment advice or portfolio management to both professional and retail clients. It is worth adding that the degree of suitability depends on the type of client to whom the advice is offered: retail, professional, or eligible clients. Retail clients are subject to the greatest degree of assessment as there is an assumption that professional clients have the necessary level of knowledge and expertise for the purpose of assessing suitability. Additional provisions include periodic suitability assessments and reports.[679] The most important rule is set up under COBS 9.2.1 which requires the financial institution 'to take reasonable steps to ensure that a personal recommendation, or a decision to trade, is suitable for its client'.[680] Financial advisors fall under the rule and are obliged to collect relevant information from a client, such as a consumer's investment objectives, information about his or her current financial situation, and level of financial literacy on investments. The objectives should include the risk profile and purpose of investment. After receiving all the necessary information, the product offered can be provided to a client. In case of missing information or uncertainty, a personal recommendation should not be made.[681] However, if the client wants to proceed with the transaction, it can be done by receiving the consumer's written confirmation. It can be labelled "libertarian paternalism" in that on one hand, accepting people's choices, and on the other still trying to help prevent wrong decisions.[682]

The suitability rule can also be found in different types of pension scheme. The schemes can be divided into trust-based and contract-based pensions. As it is easy to guess, trust-based schemes, such as Defined Benefit ("DB")[683] and Workplace Defined Contribution ("DC")[684], are those established

[676] ESMA, 'Guidelines on Certain Aspects of the MiFID II Suitability Requirements (Final Report)' (2018) <https://www.esma.europa.eu/sites/default/files/library/esma35-43-869-_fr_on_guidelines_on_suitability.pdf> accessed 4 April 2021.
[677] FCA, 'The MiFID II Guide' <https://www.handbook.fca.org.uk/handbook/M2G.pdf> accessed 10 August 2023.
[678] FCA Handbook COBS 9A.
[679] ibid COBS 9.4.
[680] ibid COBS 9.2.1(1)R.
[681] ibid COBS 9.2.1. – 9.2.7G.
[682] Cass R Sunstein and Richard H Thaler, 'Libertarian Paternalism Is Not An Oxymoron' (2003) 70 University of Chicago Law Review 1163.
[683] Also known as Final Salary Scheme.
[684] Workplace Defined Contribution may fall also under the contract-based scheme depending on the set up.

by a trust and a trustee is responsible for monitoring the investments and managing the scheme. Additionally, he or she owes a fiduciary duty to the beneficiaries and is required to act in the best interest of their clients. Trust-based schemes are subject to trust law and pension legislation.
On the other hand, the Law Commission noted that the pension providers would not fall under the suitability rule as it only applies to the firm that makes a personal recommendation of the specific type of designated investment or manages the investments.[685] This applies to contract-based pension schemes such as "private" personal pensions or DC schemes which generally own the assets of the scheme investments and are therefore excluded from the regulatory definition of "managing" investments. The exclusion field is that pension schemes are more contract-based and do not fall under the regulatory definition of managing investments which requires one to 'manage assets belong[ing] to another person'.[686] This is not the case with pension schemes. Additionally, in 2021 the FCA issued its Finalised Guidance which provides non-handbook guidance and aims 'to help advisers understand expectations when advising on pension transfers and conversions'.[687] It focuses primarily on standards that need to be put in place while giving defined benefit transfer advice and at the same time avoiding unsuitable advice.

To understand how the suitability rule works, it is worth looking at how the courts approach views suitability requirements and relevant case law. In *Mohamed Magdy Zeid v Credit Suisse*[688] after the death of her husband the widow, Soheir Ahmed Zaki, brought the case to court regarding the alleged mis-selling of complex financial products before the financial crisis. The matter focused on whether Credit Suisse had provided a personal recommendation to purchase the notes, and if the bank had taken reasonable measures to ensure the suitability of the advice for Zeid (her husband). The initial ruling was in favour of the bank, and it was noted that requirements of suitability were already implicitly stated in the COB, but that additional express guidance was provided under COBS. The case progressed to the Court of Appeal which upheld the earlier decision. The court also agreed that a personal recommendation to invest in structured product was provided to claimant. The judges considered the specific circumstances, the nature of the products, and the information provided by the CSUK to Zeid. The judge noted that COB 5 was less detailed in evaluating suitability, but new COBS 9.2 supplemented this with consideration imputed in COB 5.3.5.[689] This implies that COBS here serves as a clarifying tool offering additional insight into the examination of COB cases.

[685] FCA Handbook COBS 9.2.1 (2)R.
[686] Financial Services and Markets Act 2000 (Regulated Activities) Order 2001 art 37.
[687] FCA, 'Finalised Guidance, FG21/3 Advising on Pension Transfer' <https://www.fca.org.uk/publication/finalised-guidance/fg21-3.pdf> accessed 4 May 2022.
[688] *Mohamed Magdy Zeid v Credit Suisse* (2011) EWHC 2422 (Comm) [122].
[689] ibid 1201 [39] (Rix LJ).

In another case, *David Rocker v Full Circle Asset Management,*[690] the court focused on the suitability assessment process. It found that Full Circle Asset Management acted in breach of the suitability rule in that 'it did not do sufficient to ascertain the detail of Mr Rocker's attitude to risk; it did not undertake a sufficiently detailed attitude to risk assessment'.[691] The evidence showed that there was no documented assessment when the advice was provided and the inadequacy in record keeping. In addition, the classification of investors as "medium risk investors" was inadequate and vague. This shows the problem with the generalised categorisation of the client's risk.

The application of the suitability rule shifted over time from a more principle-based approach to a rule-based approach, even though the rules remained more or less the same. The change of view relates partially to litigation; the courts in the UK started to look in greater detail at the specific procedural requirements like record keeping or suitability reports as noted in *David Rocker v Full Circle Asset Management*. In addition, the ban on commission[692] has a positive impact not only on consumer protection and transparency but also on an increase in trust in financial services.[693]

6.7.2 Client's best interests

Next to the suitability rule is the client's best interest rule, which is found in the FCA Handbook.[694] It states that: 'A firm must act honestly, fairly and professionally in accordance with the best interests of its client', always taking into consideration and prioritising the interests of the clients. The rule is similar to Principle 6 under which a firm must pay due regard to the interests of its customers and treat them fairly. This is linked with the 'Treating Customers Fairly' ("TCF") initiative launched by the FSA. It presents six customer outcomes that set the baseline of the FCA's expectations of how firms should treat consumers.[695] These outcomes overlay the detailed rule contained in the FCA Handbook and can also be recognised as a potential basis for FCA action when a specific rule breach cannot be identified. It is worth noting that the TCF principle does not apply if consumer duty already applies as the consumer duty imposes a higher standard of conduct on firms.

[690] *David Rocker v Full Circle Asset Management* (2017) EWHC 2999 (QB).
[691] ibid [272].
[692] For further detail on the commission ban see FSA, 'A Review of Retail Distribution' (n 72).
[693] Weiping He and Han-Wei Liu, 'Rebuilding Trust: Regulation of Financial Advisers in the UK' (2021) 16 Capital Markets Law Journal 393.
[694] FCA Handbook COBS 2.1.1.
[695] FCA, 'Fair Treatment of Customers' (2015) <https://www.fca.org.uk/firms/fair-treatment-customers> accessed 4 April 2023.

6.7.3 Disclosure of information and communication with clients

As a rule the firm is obliged to disclose the information to the clients prior to the start of the service in relation to the designated investment business. This includes providing information about services, proposed investment strategies, and fees and costs applicable to the service offered.[696] This set of information will allow investors to understand the nature and risks of the service. Additional requirements are stated in COBS 6,[697] but they cover non-MiFID and non-insurance distribution provisions for retail clients. Further, the important part is stated in the COBS 6.2B rule. It sets out how a firm must describe its advice services and whether it offers independent or restricted advice. It applies to MiFID, and is extended to cover retail investment products.[698] To fulfil the rule, communication with clients is key. In terms of the general rule, 'a firm must ensure that a communication or a financial promotion is fair, clear and not misleading'.[699] The rules establish the content and timing of communications with clients. Thanks to them, clients receive transparent communication about the financial products or services offered, including associated risks and costs. Effective communication also enables clients to make informed decisions about investments in line with their financial goals. The aim of the rule is also to prevent misunderstandings between clients and financial firms and to reduce the risks of making decisions based on incomplete or inaccurate details. Receiving clear and comprehensible information helps maintain trust and confidence in the financial service industry. To summarise: fair and clear communication with clients is essential in building better relationships between client and firm.

6.7.4 The appropriateness rule

Another important rule worth noting is the appropriateness rule in Chapter 10 of the FCA Handbook. This rule applies when no personal recommendation or non-advised services are offered. The retail market applies in the situation when the package products are sold to the retail clients, but only in case of sales of complex products where "execution-only" business is excluded.[700] At that point, the client requesting the transaction has a high reliance on the financial institution. Hence, even in the case of "execution-only" transactions, the financial institution is obliged to assess the "appropriateness" of the transaction requested by a client. The rule was created to protect customers

[696] FCA Handbook COBS 2.2 & 2.2A.
[697] ibid COBS 6.1-6.1AZ.
[698] ibid COBS 6.2B.
[699] ibid COBS 4.2.1.
[700] The rule was added under Art 19(6) MiFID and then moved to Art 25(4) MiFID II.

in case of a self-harming decision taken by them when personal advice is not provided. The rule states that:

> '(1)When providing a service […], a firm must ask the client to provide information regarding his knowledge and experience in the investment field relevant to the specific type of product or service offered or demanded so as to enable the firm to assess whether the service or product envisaged is appropriate for the client.
>
> (2) When assessing appropriateness, a firm must determine whether the client has the necessary experience and knowledge in order to understand the risks involved in relation to the product or service offered or demanded'.[701]

The firm is obliged to warn a client when the information he or she has provided will not be sufficient or lacks essential information to make an appropriate assessment and select the correct products. The firm may still complete the transaction if a client decides to proceed.[702]

Further, the rule does not apply to "professional clients" and "non-complex" financial products as professional clients have sufficient financial knowledge to understand the risks associated with the products.[703] Additionally, if the transaction is already subject to the suitability rule, the rule does not apply and a firm is not obliged to assess appropriateness.[704]

6.7.5 The Consumer Duty

The most recent principle added to COB is the 'consumer duty', which sets higher standards for the treatment of retail consumers. The principle states that a firm must act to deliver good outcomes for retail customers. As a general principle, consumers should take responsibility for their decisions; however, as consumer protection is a key, the FCA require a high level of protection for retail customers for reasons such as:

> '(1) That they typically face weak bargaining positions in their relationships with firms;
>
> (2) that they are susceptible to cognitive and behavioural biases;
>
> (3) that they may lack experience or expertise in relation to products offered through retail market business; and
>
> (4) that there are frequently information asymmetries involved in retail market business'.[705]

[701] FCA Handbook COBS 10.2.1.
[702] ibid COBS 10.3.
[703] ibid COBS 10.2.1-10.3.2R.
[704] ibid COBS 10.6.1G.
[705] ibid PRIN 2A.1.9.

The new consumer duty is treated as an extension of consumer protection, imposing obligations on financial firms to prioritise good outcomes for their consumers. The expectation of higher standards of care and greater accountability must apply across all stages of the customer relationship, such as product design, communication, distribution, support, and service lifecycle.
The new consumer duty further includes cross-cutting obligations to act in good faith towards retail customers. This means that acting in good faith needs to be characterised by honesty and fair and open dealing with customers. The firm also must enable and support customers to pursue their financial objectives.
Consumer duty also plays an important role as it shifts responsibility from consumers to firms, requiring companies to take accountability for ensuring their actions result in positive outcomes. It also aims to restore trust in financial services by limiting poor practices, mis-selling, and harm.

It is a significant development and one principle where AI may play a major role in compliance by monitoring consumer outcomes. Firms using AI must ensure that their technologies align with the duty's principles and rules. AI models must deliver fair outcomes and avoid bias and unintended harm. Transparency and consumer understanding need to be at the heart of the AI system, focusing on vulnerable customers and their needs. Firms using AI responsibly can enhance compliance and, at the same time, improve the customer experience and trust.[706]

6.8 Conclusion

Continuing the topic of financial advice, this chapter offered an opportunity to understand how the legal aspects were shaped over time. Together with developments in the financial sector, changes in the sphere of the financial advisor were inevitable. The UK was hit hard by the 2008 global financial crisis and policymakers had to rethink the existing regulatory framework. One of the root causes was the retail investment market. Reforms in the retail market had already started pre-GFC with RDR in place. However, the final implementation with a ban on commission happened much later. In the time pre-crises, the focus was aligned with financial providers rather than with the customer. This led to 'poor quality financial advice and negative consumer outcomes'.[707] Lack of trust and confidence was also one of the factors that contributed to the decrease in the take-up of personal advice by retail clients. New approaches and regulations subsequently introduced, for example, MiFID, led to improved investor protection and boosted confidence in the financial sector.

[706] FCA, 'Consumer Duty' <https://www.fca.org.uk/firms/consumer-duty> accessed 10 October 2024.
[707] Europe Economics, 'Retail Distribution Review Post Implementation Review' (2014) 6 <https://www.fca.org.uk/publication/research/rdr-post-implementation-review-europe-economics.pdf> accessed 16 March 2021.

The automated robo-advice service lacks separate regulations. Therefore, based on the approach taken by the UK Government, current regulations applicable to traditional advice apply. Better to understand the system as a whole, the information in this chapter is a necessary part of any overview of the problems that have arisen in the financial advice area to date. To achieve a comprehensive overview of the financial advisor's legal position, the impact of the common law must also be considered. The following chapter focuses in greater detail on the role of the common law in the current financial advice regime. This will help to complete the legal understanding of financial advice and create a useful background for a comparison with online robo-advice systems.

7 Chapter VII: The residual role of the common law in the current financial advice regime

7.1 Introduction

In the investment advice area, the law is determined by the statutory rules, conduct rules, and the common law. The common law has played an important role in shaping the development of financial advice. The system developed over time and helped to create the foundations for statutory regulation and rules for financial advisors. Before 1986 the status of the advisor and its sphere of operation were underdeveloped. All agents were subject to the common law of agency which controlled the substance of financial advice while the tradition of self-regulation played a significant role in the UK financial sector. Since the introduction of the Financial Services Act 1986, the position of the advisor has seen a start to more detailed regulation in UK legislation. In its current form regulation is based on mandatory rules, which allow for greater flexibility in the legal context of investment transactions.

7.2 Fiduciary Duties

Fiduciary duties need to be considered in greater detail as they are one of the most important aspects of the investment process. They arise from the presence of an equitable obligation, such as trust and confidence, owned by one party to another during its fiduciary relationship.[708] This has been recognised as a fiduciary obligation.[709] By their nature, fiduciary duties contain duties to restrain the fiduciary from behaving inappropriately in his or her position, such as to avoid conflicts of interest or secret profit. In the literature this is recognised as a proscriptive legal rule.[710] On the other hand, the fiduciary obligations which lead to the creation of the duties, are termed prescriptive and "compound obligations", as noted by Birks.[711] In his formulation, the compound obligation is the combination of the best-interests duty based on the preservation and promotion of beneficiary interest, and the duty of care and other ancillary services. This includes the duty to act disinterestedly. The duty itself has been reduced to focus only on core or central obligations and abstain from the interest that may create a conflict with that duty.[712] He acknowledges compound duty but emphasises its prospective dimension in the fiduciary context. His view, however, was not widely adopted by the courts. While the core fiduciary duty retains a focus on conflicts and benefits, the compound duty

[708] *Bristol and West Building Society v Mothew* (n 38).
[709] PD Finn, *Fiduciary Obligations* (Law Book Co 1977).
[710] *Tito v Waddell (No 2)* (1977) Ch 106.
[711] Peter Birks, 'The Content of Fiduciary Obligation' (2000) 34 Israel Law Review 3, 12.
[712] ibid 29.

theory analyses broader obligations within the fiduciary framework. This aside, the practical application remains a subject of debate.[713] A similar view is highlighted by Low[714] and sparked controversy within legal circles. Some scholars disagree with the approach and state that the imposition of additional duties on fiduciaries will create uncertainty and overburden the current legal aspect of fiduciary.[715]

Lord Millett also notes that the principle of loyalty is multifaceted:

> 'The core liability has several facets. A fiduciary must act in good faith; he must not make a profit out of his trust; he must not place himself in a position where his duty and his interest may conflict; he may not act for his own benefit or the benefit of a third person without the informed consent of his principal'.[716]

A fiduciary may also be subject to other duties which are not strictly defined as "fiduciary duties" such as duty of care or duty of confidentiality.[717] Moreover, the objective of fiduciary duties is to highlight the issue of asymmetric information. In the financial world, the private investor may not always have sufficient knowledge or access to the same information as the advisor. Consequently, in order to minimise unnecessary breaches, the advisor is obliged to disclose all information to the clients and not make any personal gain. The situation changes slightly if the client is a sophisticated investor as, on this ground, the information can be disclosed on a voluntary basis.

7.2.1 Who is a fiduciary under English Law?

The term "fiduciary" is derived from Latin word *fidere* – to trust. As a legal concept it can be traced to Roman law and the introduction of *fiducia.*[718] Interestingly, the concept of legal relationship including trust and "loyalty" can be found in the old legal rules in the Code of Hammurabi.[719] However, the simplicity of the rules and their justification at that time is aeons removed from the current complexity of the modern English-law fiduciary duty. The fiduciary concept can also be seen

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[713] Robert Flannigan, 'Compound Fiduciary Duty' (2017) 23 Trusts & Trustees 794.
[714] Kelvin FK Low, 'Fiduciary Duties: The Case for Prescription' (2017) 30 Trust Law International <http://dx.doi.org/10.2139/ssrn.3060825> accessed 10 March 2023.
[715] Flannigan (n 713) 795–805.
[716] *Bristol and West Building Society v Mothew* (n 38).
[717] Sarah Worthington, 'Four Questions on Fiduciaries' (2016) 2 Canadian Journal of Comparative and Contemporary Law 723.
[718] Charles Sherman Phineas, *Roman Law in The Modern World Vol-Iii* (Baker Voorhis and Co New York 1937) 35 <https://archive.org/details/dli.ernet.7960> accessed 2 April 2022.
[719] An example is rule 102: 'If a merchant entrust money to an agent (broker) for some investment, and the broker suffer a loss in the place to which he goes, he shall make good the capital to the merchant.' Additionally, rule 104-107 relates to the property held by an agent. See The Avalon Project, 'The Code of Hammurabi. Translated by King, L. W.' <https://avalon.law.yale.edu/ancient/hamframe.asp> accessed 10 October 2022.

across different civilisations such as in the Old and the New Testaments and the teachings of Aristoteles and Confucius.[720] Despite this diversity, there is no universal definition of fiduciary duty. In *Lac Minerals Ltd v International Corona Resources* [721] the "fiduciary" is described as 'one of the ill-defined, if not altogether misleading terms in our law'. In another famous case, a fiduciary is identified as

> 'someone who has undertaken to act for and on behalf of another in a particular matter in circumstances which give rise to a relationship of trust and confidence. The distinguishing obligation of a fiduciary is the obligation of loyalty. The principal is entitled to the single-minded loyalty of his fiduciary'.[722]

The fiduciary obligation is based on the legal rule itself, and as stated by Finn, 'it is not because a person is "fiduciary" or a "confidant" that a rule applies to him. It is because a particular rule applies to him that he is a fiduciary or confidant for its purposes'.[723]

Further, the Law Commission[724] examined who might be considered a fiduciary and found it will mostly depend on the nature of the relationship with clients and the function they fulfil. Furthermore, a person who provides investment or other financial advice may also have fiduciary duties as happened in the leading case *Daly v Sydney Stock Exchange.*[725] In this case, the broker advised the claimant not to invest money in the stock exchange but rather loan it to the broking firm which later became insolvent. Despite the lack of a typical principal-agent relationship, the High Court noted that:

> 'Whenever a stockbroker or other person who holds himself out as having expertise in advising on investments in approached for advice on investments and undertakes to give it, in giving that advice the adviser stands in a fiduciary relationship to the person whom he advises. The adviser cannot assume a position where his self-interest might conflict with the honest and impartial giving of advice'.[726]

To summarise: in this case giving the advice was sufficient to create a fiduciary relationship. However, this does not apply in every case – 'the mere provision of advice does not convert a business relationship … into a fiduciary relationship'.[727] The advisor must provide advice 'in the relevant sense

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[720] European Commission, *Resource Efficiency and Fiduciary Duties of Investors: Final Report.* (Publications Office 2015) 22 <https://data.europa.eu/doi/10.2779/075175> accessed 24 June 2024.
[721] *Lac Minerals Ltd v International Corona Resources Ltd* (1989) 61 D.L.R (4th) 14, 26.
[722] *Bristol and West Building Society v Mothew* (n 38).
[723] Finn (n 709) 2.
[724] Law Commission, 'Fiduciary Duties and Regulatory Rules' (1995) HMSO Cm 236 <https://cloud-platform-e218f50a4812967ba1215eaecede923f.s3.amazonaws.com/uploads/sites/30/2015/04/lc236.pdf> accessed 10 October 2022.
[725] *Daly v Sydney Stock Exchange Ltd* (1986) 160 CLR 371.
[726] ibid [1986] 160 CLR 385.
[727] *Warren v Percy Wilson Mortgage and Finance Corporation* (1984) 472 NE 2d 364 (Ohio) at 367, by Black J.

for the purpose of liability as fiduciary'.[728] The Law Commission also pointed to *Aequitas v Aefc* where the court stated:

> 'the fiduciary relationship between a financial adviser and client arises because the financial adviser, having held itself out as an adviser on matters of investment, undertakes a particular financial advisory role for the client'.[729]

A similar situation arises for investment managers. As Moore-Bick LJ pointed out in *Diamantides v JP Morgan Chase Bank* 'it would be unusual for an investment manager acquiring and managing a portfolio of investments under a formal management agreement not to owe duties of care and duties of a fiduciary nature to the other party to the agreement'.[730]

Another party considered by the Law Commission in the fiduciary context was the broker. Generally, this will depend on the nature of the service offered to the client, for example, in the case of "execution-only" service the fiduciary duty does not exist. This aspect is also covered in the FCA Handbook under COBS. The execution-only transaction is where the financial institution or broker executes transactions based on the specific instruction provided by the client. This approach applies when advice is not provided to the client regarding the merits of the transactions. In this respect the rules governing the assessment of appropriateness do not apply. However, the appropriateness test must be applied where the financial instrument cannot be classed as "non-complex'.[731] In this instance the firm is obliged to provide clear and credible documents which state that clients is aware that it is an execution-only transaction with no advice provided by the firm and no responsibility for product suitability before the transaction can take place. However, firms are obliged to execute orders on terms that are more favourable to the client, taking into consideration various factors, like price, costs, settlement, and size.[732] In summary, even though execution-only transactions without advisory service are provided, the firm must still adhere to best execution standards to protect client interest. However, if a broker will be engaging in buying or selling securities for clients, he or she may be subject to the fiduciary duty.[733]

[728] *Pilmer v Duke Group Ltd* (2001) 2017 CLR 165 at 197.
[729] *Aequitas v Aefc* (2001) NSWSC 14 at 307.
[730] *Diamantides v JP Morgan Chase Bank* (2005) EWCA Civ 1612 at 27.
[731] There is no formal definition of complex financial instruments. However, the implied definition is that a complex financial instrument is any instrument that does not meet the criteria for non-complex financial instruments found in FCA Handbook COBS 10 & 10A.
[732] ibid COBS 11.2.A.
[733] *Armstrong v Jackson* (n 30); *Hancock v Smith* (1889) 41 Ch D 456.

7.2.2 Fiduciary relationships and duty of loyalty

In the common-law system, fiduciary duties are imposed in specific situations. A relationship can be recognised as fiduciary but this depends on a few factors, such as the type and nature of the relationship between parties which can vary from case to case. Fiduciaries also may have different duties depending on the situation.

Fiduciary relationships may be understood in a very broad sense to cover not only principal and agent relations, but also relations between shareholders and directors, trustee and beneficiary, corporations and director, and partners and partnerships. The courts have also held that this is not a "closed list".[734] There are two circumstances in which fiduciary relationships can arise. The first is the status-based approach, where a relationship arises based category – eg, client and solicitor or mortgagee and mortgagor. Second, is the fact-based approach where the relationship is formed on the basis of the circumstances and facts having a fiduciary character. This form is not closed, and it for the courts to decide whether the relationship has elements of trust and confidence.[735]

The fiduciary relationship continues to survive under the common-law approach through one of the oldest cases in jurisprudence, *Keech v Sanford,* decided in 1726.[736] The case arose from the English trust law and referred to the duty of loyalty. The agent, Sanford, was acting as a trustee of the leased property for his client until the child came of age. Instead of renewing the lease for the client, the benefactor, under the influence of the landlord of the property, to continue the lease himself. In this case, the duty of loyalty was breached, and the Lord Chancellor decreed 'that the lease should be assigned to the infant, and that the trustee should be indemnified from any covenants comprised in the lease, and an account of the profits made since the renewal'.[737]

Fiduciary law creates a duty described as the duty of loyalty. The duty centres around the conflict of interests which may be created. Three potential types of transaction may be distinguished associated with the conflict of interests. First, the fiduciary may act on behalf of the principal without informed

[734] *Laskin v Bache & Co* (1972) 1 O.R. 465, at 472, 23 D.L.R. (3d) 385, 392 (C.A. 1971) (Arnup J.A.). 'In my opinion the category of cases in which fiduciary duties and obligations arise from the circumstances of the case and the relationship of the parties is no more "closed" than the categories of negligence at common law.'; *English v Dedham Vale Properties Ltd* (1978) 1 WLR 93, 110. (Slade J): ' I do not think that the categories of fiduciary relationships which give rise to the constructive trusteeship should be regarded as filling into a limited number of strait-jackets or as being necessarily closed. They are, after all, no more than formulae for equitable relief'.
[735] Law Commission, 'Fiduciary Duties of Investment Intermediaries: A Consultation Paper. No. 215' pt 5.3-5.8.
[736] *Keech v Sanford* (1726) sel. Cas. T. King 61.
[737] ibid at 175.

content (secret self-dealing); second it relates to the quality of consent information provided to the principal by an agent; and third, it applies to acting with the third party but not in the client's interest.[738]

Despite the long history of the fiduciary obligation, uncertainty remains. Depending on the situation and circumstances in a specific relationship, the courts will need to decide on the imposition of fiduciary obligations. As Cooter and Freedman state: 'at a more fundamental level, the principle on which that obligation is based is unclear'.[739] It must, however, be remembered that the provision of advice does not automatically give rise to fiduciary duties.[740] The situation is clearer when the client is dependent on that advice. However, when client's decision is expressly based in his or her own judgement and interests, it will be regarded as the provision of information rather than advice and no fiduciary duties will arise.[741]

Debate continues to surround the question of fiduciary duties and how the law should address fiduciary obligations in a business or investment context. The obligations of loyalty to the client and the duty to avoid conflicts of interest have been at the heart of a number legal disputes. Questions arose around the possibility of modifying or excluding fiduciary duties from the contracts[742] so limiting the duty to avoid conflicts of interest for professional advisors who act for multiple clients.[743]

7.2.3 Law Commission Report

In its report Fiduciary Duties and Regulatory Rules,[744] the Law Commission highlighted the conflict arising between professionals and businesses and their duties to their customers. This was launched following changes affecting the financial market, in particular, the abolition of the Stock Exchange's single-capacity requirements and a significant increase in the development of financial conglomerates together with a wider range of services offered to clients. As stated in the Report:

> 'A fiduciary relationship is one in which a person undertakes to act on behalf of or for the benefit of another, often as an intermediary with a discretion or power which affects the interests of the other who depends on the fiduciary for information and advice.'

[738] Robert Cooter and Bradley J Freedman, 'An Economic Model of the Fiduciary's Duty of Loyalty' (1990) 10 Tel Aviv University Studies in Law 297, 305–306.
[739] ibid 298.
[740] *Burns v Kelly Peters & Associates Ltd* (1987) 16 BCLR (2nd).
[741] *James v Australia and New Zealand Banking Group* (1986) 64 ALR 347 at 366-368.
[742] Law Commission, 'Fiduciary Duties of Investment Intermediaries' (Stationery Office 2014) No. 350 3.37-3.39 <https://assets.publishing.service.gov.uk/media/5a7ec5bee5274a2e87db1cfd/41342_HC_368_LC350_accessible.pdf> accessed 10 February 2022.
[743] *Marks and Spencer plc v Freshfields Bruckhaus Deringer* (2004) EWCA Civ 741.
[744] Law Commission, 'Fiduciary Duties and Regulatory Rules' (n 724).

The Report summarised fiduciary duties in four basic rules. First, the "no conflict" rule that a fiduciary's interest cannot conflict with that of the client. Second, the "no profit" rule that a fiduciary cannot profit from his or her position at the client's expense. Third, the "undivided loyalty" rule in terms of which the fiduciary is obliged to provide all information relevant to the customer's affairs. And fourth, the "confidentiality" rule that the fiduciary may only use the information provided to him or her in confidence by his or her clients for the client's benefit and not his or her own.[745] Provisional conclusions regarding fiduciary duty problems within the financial markets were published in a consultation paper in May 1992.[746] They noted that although there may be instances where regulatory rules require firms to act in a manner which could result in a breach of fiduciary duty, these are rare. There are examples where the terms of the contract between parties may be expressly or impliedly amended in the form of contractual adjustment to the common-law fiduciary duty.[747] An example of this contractual adjustment occurred in *Kelly v Cooper*[748] where the estate agent acted simultaneously for both buyer and seller. At first glance it appears that the agent breached his fiduciary duty by not avoiding a conflict of interest, however, the judges reached a different conclusion, stating that the scope of fiduciary duties owed by an agent to his principal is defined by the express and implied terms of the contract of agency which excludes the agent from the conflict-of-interest rule. The fiduciary duty was considered further in the Law Commission's report.[749] The Commission noted that fiduciary duties cannot be understood in isolation. The fiduciary duties may be compared to "legal Polyfilla"[750] – just as Polyfilla is used to fill gaps in physical structures, so the fiduciary duty fills gaps or potential conflicts of interest in legal relationship rather than constituting the entire framework.

The report pointed out that, given their complexity, understanding fiduciary duties in a broad sense could be misleading. There is also uncertainty as to when fiduciary duties arise and what they should include. The 1992 Commission Papers called fiduciary obligations 'highly complex, poorly delimited, and in a state of flux'.[751] Further on this point, fiduciaries may own both fiduciary and non-fiduciary duties. As a result, not every breach of duty will be recognised as a breach of a fiduciary duty.[752] The Commission observed that the "obligation of loyalty" is the core of the fiduciary duty as was noted by Lord Justice Millett in *Bristol and West Building Society v Mothew.*[753] The Law Commission identified two themes associated with the duty of loyalty. The first is the "no conflict

[745] ibid 1.4, p. 2.
[746] Law Commission, 'Fiduciary Duties and Regulatory Rules. Consultation Paper No. 124'.
[747] Law Commission, 'Fiduciary Duties and Regulatory Rules' (n 724) pt VII p.43.
[748] *Kelly v Cooper* (1993) AC 205 at 213-215.
[749] Law Commission, 'Fiduciary Duties of Investment Intermediaries' (n 742).
[750] ibid 3 para 3.1.
[751] Law Commission, 'Fiduciary Duties and Regulatory Rules. Consultation Paper No. 124' (n 746) para 2.4.1.
[752] *Bristol and West Building Society v Mothew* (n 38); *AG v Blake* (1998) Ch 439 at 455; *Lac Minerals Ltd v International Corona Resources Ltd* (n 721).
[753] *Bristol and West Building Society v Mothew* (n 38).

rule" and second the "no profit rule". Additionally, if the required authorisation is made, for example, in the form of principal consent,[754] prior authorisation,[755] or court sanction,[756] the fiduciary will not be liable for breaching the rules. The parties have the right to modify or exclude/include the specific terms of fiduciary duties in the contract, so "the contract is the starting point",[757] and duties could be amended under the current approach taken by the courts in England and Wales. Fiduciary duties can be 'moulded according to the nature of the relationship and the facts of the case'.[758] Consequently, there is no doubt that contractual and fiduciary relationships can co-exist.[759] Lord Browne-Wilkinson added that 'the extent and nature of the fiduciary duties owed in any particular case fall to be determined by reference to any underlying contractual relationship between the parties'.[760] The same view was highlighted by the Law Commission and is termed the "contract-first approach".[761]

Where there is no formal contract, fiduciary duties can still apply. Although, as previously noted, the fiduciary relationship does not arise automatically, it can arise in specific situations – eg, by advising a customer on transactions or becoming a financial advisor in relations between agent/principal, trustee/beneficiaries, or directors/shareholders. Duties that they represent exist independently of a written contract and are based on trust and confidence. They also may arise on an *ad hoc* basis. Customers of a financial firm may argue that a fiduciary relationship exists between them in certain instances outside of the established framework. The principal argument by customers is that the firm is bound to higher standards than in "arm's length" transactions which opens the potential for customers. Even if it is difficult to establish the existence of an *ad hoc* fiduciary duty (*JP Morgan Chase Bank and Others v Springwell Navigation Corporation*[762]*; Titan Steel Wheels v The Royal Bank of Scotland plc*[763]), the customer may succeed if the court considers the relevant regulatory rules in the context of fiduciary duty.[764]

Interesting points were raised by Kay in his review of UK equity markets.[765] He highlighted the need to review and clarify the position of the fiduciary duty in the equity market and stated that:

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[754] *Boardman v Phipps* (1967) 2 AC 46 at 109; *Clark Boyce v Mouat* (1994) 1 AC 428 at 435.
[755] It may come from the person who created the fiduciary relationship: *Edge v Pensions Ombudsman* (2000) Ch 602 at 621-622 and 632-633; *Brown v IRC* (1965) AC 244 at 256.
[756] *Campbell v Walker* (1800) 5 Ves Jr 678 at 681; *Farmer v Dean* (1863) 32 Beav 327.
[757] *Fattal v Walbrook Trustees (Jersey) Ltd* (2010) EWHC 2767 (Ch) at 113.
[758] *Hospital Products Ltd v United States Surgical Corporation* (1984) 156 CLR 41 at 102 by Mason J.
[759] *Hospital Products Ltd v United States Surgical Corporation* (n 758).
[760] *Henderson v Merrett Syndicates Ltd* (1995) 2 AC 145 at 206.
[761] Law Commission, 'Fiduciary Duties of Investment Intermediaries' (n 742) 10.48-10.54.
[762] *JP Morgan Chase Bank and Others v Springwell Navigation Corporation* (2008) EWHC 1186.
[763] *Titan Steel Wheels Ltd v The Royal Bank of Scotland Plc* (2010) EWHC 211.
[764] MacNeil (n 609) 445.
[765] Kay (n 659).

> 'All participants should observe fiduciary standards in their relationships with their clients and customers. Fiduciary standards require that the client's interests are put first, that conflict of interest should be avoided, and that the direct and indirect costs of services provided should be reasonable and disclosed. These standards should not require, nor even permit, the agent to depart from generally prevailing standards of decent behaviour. Contractual terms should not claim to override these standards'.[766]

He examined the fiduciary duty from the perspective of various sectors. The pension fund sector is a good example where the fiduciary obligation arises in the trust deed under which the scheme is managed. However, 'the legal position of other intermediaries is less clear'. Based on the review, Kay found that some asset managers limit their fiduciary duty to the contract terms. From his perspective, 'the core fiduciary duties are those of loyalty and prudence',[767] although he did not recommend any changes in the law. As a response to Kay's recommendations regarding the fiduciary duty, the government agreed that common minimum standards should be adopted for all intermediaries. However, it refrained from using the term 'fiduciary' and rather opted for the principle applicable to equity markets which are a reflection of Kay's *Good Practise Statements for Asset Managers and Asset Holders*:

> 'All participants [..] should act:
> - In good faith;
> - In the best long-term interest of their clients or beneficiaries;
> - In line with generally prevailing standards of decent behaviour.
>
> […] These obligations should be independent of the classification of the client. They should not be contractually overridden'.[768]

One of the most important questions raised by the Law Commission was the potential reform of the law of fiduciary duties. They argued in the Consultation Paper that they were against a reform introducing Kay's principles. The main argument was that 'fiduciary duties are difficult to define and inherently flexible'. The amendment could also raise new uncertainties and consequences in other areas. Based on the report and responses to it, the outcome was that the general law of fiduciary duties should not be reformed by statute.[769] The Law Commission, however, considered the right to extend section 138D of the FSMA which imposes duties on all intermediaries in the investment chain to act fairly. It is worth reminding that currently the provision is only available to a "private person" against

[766] ibid 65.
[767] ibid 65–68.
[768] Department for Business Innovation & Skills, 'The Government Response to the Kay Review. Ensuring Equity Markets Support Long Term Growth' 9 <https://assets.publishing.service.gov.uk/media/5a75841ce5274a1242c9eea9/bis-12-1188-equity-markets-support-growth-response-to-kay-review.pdf> accessed 4 October 2022. The Full list of the Principles for Equity Markets can be found on page 13 of the Response, which is followed by Directions for Market Participants and Directions for Government and Regulations.
[769] Law Commission, 'Fiduciary Duties of Investment Intermediaries' (n 742) 11.4.-11.6.

losses caused by the intermediary on the basis of a contravention. Hence, the section is very limited and applies only to private persons[770] who must be individuals. Furthermore, not all rights are actionable. The private person may not take action on the basis of the FCA Principles of Business.[771] The Law Commission took two aspects into consideration. First, the provision could be extended to open the possibility for businesses to sue; and second, they will be allowed to impose actions based on the FCA Principles of Business. Arguments in favour and against have been extensively presented. Extension of the section could lead to improvements in the behaviour of participants and also improve enforcement. On the other hand, strong contra-arguments have been presented, including uncertainty, and higher legal and insurance costs for beneficiaries. The Law Commission decided not to pursue any changes to the law at this stage,[772] although they focused on steps that professional organisations could take in soft-law regimes.

Summarising the above: the fiduciary duty law is complex and serves numerous legal objectives. It prohibits certain types of behaviour by raising the possibility of applying remedies in the cases of clear wrongdoing. It needs to be remembered that investment markets are generally subject to contracts, FCA regulations, legislation, and case law – indeed a complex interrelationship.

7.2.4 Breach of duty of loyalty and remedies

The aim of the financial advisor is to provide adequate and appropriate advice to the potential client without any bias. There are situations in which the duties imposed on fiduciaries are not followed resulting in a breach of duty. As Lord Justice Millett has noted:

> 'It is obvious that not every breach of duty by a fiduciary is a breach of fiduciary duty… breach of fiduciary obligation, therefore, connotes disloyalty or infidelity. Mere incompetence is not enough. A servant who loyally does his incompetent best for his master is not unfaithful and is not guilty of a breach of fiduciary duty'.[773]

An example of a clear breach of the principle of loyalty is secret commission offered to a fiduciary. This will constitute a breach of fiduciary duties unless the fiduciary provides evidence that the payment was made with the full, informed consent of the consumer. In the UK, various remedies are available when a breach of fiduciary duty occurs. One of these is rescission where the affected party

[770] Financial Services and Markets Act 2000 (Rights of Action) Regulations 2001 art 3.Private person. - Exception applies to the corporate persons, if they not "conducting business of any kind".
[771] FCA Handbook PRIN 3.4.4R.
[772] Law Commission, 'Fiduciary Duties of Investment Intermediaries' (n 742) 11.24-11.33.
[773] *Bristol and West Building Society v Mothew* (n 38) at 16, 18.

may seek to undo the transactions or contract that resulted in the breach.[774] Compensation is another remedy where the injured party may seek financial compensation for losses suffered due to breach. In the case of a secret commission, the consumer can still claim the amount of the secret commission from the fiduciary.[775] Further, the court takes a stricter approach to another remedy – the account of profits. In *Boardmann v Phipps,*[776] a fiduciary was required to account for profits to a trustee even though the trust had benefited from the fiduciary's actions – the profit resulted from the breach of a fiduciary duty. In short, a fiduciary cannot benefit from his or her misconduct.

Another form of redress available to private investors is the Financial Ombudsman Service ("FOS"). This is a quick and informal way to lay a complaint on behalf of customers with a limit of up to £150,000. In the main, these involve financial services such as investment and marketing of individual pension arrangements. Another form of redress in matters related to the administration and management of personal and occupational pensions is the Pensions Ombudsman. The last form of redress is action in the civil courts in cases where medium or large businesses are looking to win in excess of £150,000. This remedy is widely available but is not without disadvantages. Litigation can result in very high legal costs and can be slow.[777]

Apart from private redress, there is also the possibility of using public redress. This involves regulatory authorities taking action against individuals or entities that violate their obligations which impacts broader public interest. A public redress mechanism can be used by regulators to ensure accountability and protect broader interests when fiduciary duties are breached. If this happens, the regulator (the FCA) will investigate and impose sanctions or penalties where necessary.

There are a few tools available to regulator as redress for consumers' losses: a restitution order,[778] a consumer redress scheme,[779] and the FOS.[780] As the main aim of the FSA 2010 was to improve overall consumer protection, the first step was to introduce a "consumer redress scheme".[781.] It empowered the regulator to create new rules for financial institutions to establish a new consumer redress scheme in case of potential financial losses caused by firms' inadequate compliance with statutory duties.[782]

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[774] *Boston Deep Sea Fishing & Ice Co v Ansell* (1888) 39 Ch.D. 339 at 357-358.
[775] McMeel (n 96) 616–618.
[776] *Boardman v Phipps* (n 754).
[777] For example, the JP Morgan Bank v Springwell case took 12 years to complete. It started in 1998 and finished with the Court of Appeal ruling in 2010.
[778] Financial Services and Markets Act 2000 s 384.
[779] ibid 404.
[780] ibid 225.
[781] ibid 404.
[782] Joanna Gray, 'The Legislative Basis of Systemic Review and Compensation for the "Misselling" of Retail Financial Services and Products' (2004) 25 Statute Law Review 204.

The scheme, however, was rarely used as the restitution order can only be used on a case-by-case basis which is unsuited for large-scale use by regulators with limited resources. As per FSA guidance, 'the s. 404 of the FSMA power is limited so that the only failures a scheme can address are those that a court or tribunal would find to have been failures at the time the activities were carried on'.[783] Additionally, the scheme can be used by anyone who has a statutory "right of action". Limitation occurs in case of a breach of the FSA rules as it generally applies only to the private person under section 138D of FSMA and individuals acting outside their profession or trade under the Unfair Terms in Consumer Contracts Regulations 1999. However, in case of misrepresentation, claims can be brought to court by all types of legal person.[784] Other tools available to the regulator are public censure, financial penalties, suspension of permission, restitution orders, and cancelation of permissions. It may also cause reputational loss for the penalised firms.[785]

It is relevant in this context to mention the recent court of Appeal decisions[786] on motor finance, which addressed issues related to the disclosure of commissions in consumer finance agreements, where motor brokers received commissions from lenders. These cases represent instances of breach of loyalty and applicable redress. The Court of Appeal held that brokers own a 'disinterested duty' to provide information to customers on any commissions they received and that the relationship between motor dealer and the consumer was fiduciary in nature. The court also outlined that the level of disclosure matters, and partial disclosure is still considered as insufficient. Further, the court found that the lenders were liable as accessories as they knew that brokers were failing to provide proper disclosure. These cases clearly articulate the nature of breach of the duty of loyalty in consumer finance, by being misleading customers about the costs and terms of credit arrangements.

7.3 The tort duty of care

A further important common-law aspect of liability is the application of tort law[787] which plays an essential part in investment. Liability arising here relates to the duty of care owed to another person and, in many examples, will relate to negligent and fraudulent misrepresentation. Tort law is typically addressed through civil litigation where a plaintiff seeks compensation or other remedies from the party at fault. The first step is to establish whether the duty of care exists. If it exists, the breach of duty and resultant loss must be presented in court. One of the significant cases in the law of negligence

[783] FSA, 'Guidance Note No. 10 Consumer Redress Schemes' para 7.4 <https://www.fca.org.uk/publication/guidance-consultation/guidance10.pdf> accessed 3 October 2022.
[784] ibid para 10.1-10.2.
[785] FCA, 'Enforcement' (2016) <https://www.fca.org.uk/about/how-we-regulate/enforcement> accessed 15 April 2021.
[786] *Johnson v FirstRand Bank Limited, Wrench v FirstRand Bank Limited and Hopcraft v Close Brothers* (2024) EWCA Civ 1106.
[787] Referred to as a "delict" in Scotland.

is *Gorham v British Telecommunication Plc.*[788] The case related to personal pension advice provided to Mr Gorham by a Standard Life representative. After Gorham's death, his widow, sued on her behalf and on behalf of their children. The main issue was whether Standard Life owed a duty of care to the plaintiffs and whether this duty had been breached. Standard Life conceded that their representative owed a duty of care to Mr. Gorham and had failed to clarify the difference between an occupational scheme and personal pension before selling the product. It, however, denied owning a duty of care to the plaintiffs. The Court of Appeal held that Standard Life indeed owed a duty of care to the plaintiffs. Pill LJ stated that:

> 'the advice in this case was given in the context in which the interests of the dependants were fundamental to the transactions, to the knowledge of the insurance company representative giving advice as well as to his customer, and a duty of care was owed additionally to the intended beneficiaries'.[789]

It is worth noting that tort liability exists independently of the regulatory system, and even if the claim of breach of statutory duty fails, a claim in common law may still succeed.[790]

Another signal case is *Hedley Byrne & Co Ltd v Heller & Partners Ltd* which shows that duty of care may also exist for a third party. In this case the court stated that the relationship between parties was "sufficiently proximate" to create the duty of care by the bank to the third party who had relied on the statement provided by the bank.[791] Coming from the example, the rule stated that in limited circumstances pure economic loss flowing from the negligent misstatement might be invoked in a claim for damages. However, in this case the court held that the bank was not in breach of the duty of care as the reference contained a disclaimer of liability. Despite the plaintiff's lack of success, the case is still recognised as one of the first examples of liability for negligent financial advice.

Negligent misrepresentation is another major concern in 'mis-selling' claims. There are two types of misrepresentation. The first is misrepresentation in tort as set out in Hedley Byrne's case above. The second appears under the Misrepresentation Act 1967 and differs slightly from the action in tort. First, there is no need for the duty of care to exist as is required for negligence in tort. Second, if the misrepresentation is accepted, the burden of proof moves to the defendant who must then show that 'he had reasonable ground to believe […] the facts represented were true'.[792]

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[788] *Gorham v British Telecommunications Plc* (n 592).
[789] ibid at 2142.
[790] *Ousley J in R v FSA* (2011) EWHC 999 at 182.
[791] *Hedley Byrne & Co v Heller Partners Ltd* (1964) AC 465. The thesis was advanced by Foster J in *Briggs v Gunner* (1979) NLJ 116.
[792] Misrepresentation Act 1967 s 2.

It is also important to recognise a distinction between bad advice (provided without a duty of care) and bad results resulting from movements in the market. *Stafford v Conti Commodity Services Ltd* is a clear example where a commodity broker's client claimed for the poor performance of his investments. The court dismissed the action as 'losses in the ordinary course of things do occur even if proper care is used when one is dealing with the transactions on the commodities futures market'.[793] A similar conclusion was reached in *Merrill Lynch Futures Inc v York House Trading Ltd.*[794] Here, the court also held that the doctrine of *'res ipsa loquitur'*[795] will not be considered in such a case. It is worth noting that the contractual duty of care was restated in section 13 of the Supply of Goods and Services Act 1982 which provides that: 'In a contract for the supply of a service where the supplier is acting in the course of a business, there is an implied term that the supplier will carry out the service with reasonable care and skill'.[796]

Liability in tort arising from investment advice is significant as it allows for redress to be sought in situations where a contractual relationship does not exist. A famous case dating from 1908 involved an investor who wrote to a newspaper asking for the best way to invest his money and for the name of a good stockbroker. The city editor provided the name of a broker who appears to have been an "outside broker" (ie, not part of the Stock Exchange and unregulated), a fact of which the investor was unaware. The money was soon embezzled by the broker, resulting in a loss for the investor. The court held that the despite not having a "written" contract, it was relevant that the editor had been willing to publish the letter in the newspapers and had failed to take reasonable care in providing the right broker.[797]

Another well-known example of mis-selling is *Titan Steel Wheels Ltd v The Royal Bank of Scotland Plc*[798] The manufacturer of steel wheels for vehicles (the claimant) entered two currency swap derivative products[799] with the Royal Bank of Scotland. While his business was based in the UK, he primarily sold products in European countries and so was constantly exposed to exchange rate risk. Titan alleged that the RBS had provided negligent advice to enter the OTC deal, while the products

[793] *Stafford v Conti Commodity Services Ltd* (1981) 1 All E.R. 691 at 698 per Mocatta J.
[794] *Merrill Lynch Futures Inc v York House Trading Ltd* (1984) 5 WLUK 199.
[795] *Res ipsa loquitur* – 'the things speak for itself' - doctrine in common law, that the mere occurrence of some types of accident is sufficient to imply negligence.
[796] Supply of Goods and Services Act 1982 s 13.
[797] *De la Bere v Pearson Ltd* (1908) 1 K.B. 280.
[798] *Titan Steel Wheels Ltd v The Royal Bank of Scotland Plc* (n 763).
[799] Over-the-counter derivatives are very complex financial products and require a series of explanations and discussions between consumer and financial institution.

were not suitable for the claimant's needs. Further claims related to losses suffered by Titan following the deal and failure to provide "fair" and not misleading communications regarding the products sold.

In the mis-selling cases, the court's point of departure is to decide whether the financial institution has a duty of care as an advisor. In determining the advisory relationship, the courts often uses contractual terms. This is consistent with the common-law principle that agreement between parties represents the duties of the parties and the scope of reasonability.[800]

This is what happened in the *Titan* case where, based on the contractual documents, the court decided that the bank would not provide the advisory service and any opinion expressed should not be treated as advice.[801] The court supported its decision declaring that 'a person who signs a document, knowing it is intended to have a legal effect, is generally bound by its terms'.[802] Additionally, there was no advisory fee paid to the bank which is a further indication that advice was not requested.[803] Similarly, in *Bankers Trust International Plc v Dharmala Sakti Sejahtera* the court rejected the bank's advisory duty as the claimant had not asked it to act as an advisor and understood the proposal which he was given.[804] Another case, *Green & Rowley v The Royal Bank of Scotland Plc,*[805] illustrates that a disclaimer in the agreement excludes responsibilities on the bank side. In this case, the customer claimed that he had received negligent advice while the disclaimer stated that the bank would provide execution-only services and no advisory service would be provided.

An interesting point regarding the duty of care was also raised in the *JP Morgan Chase Bank and Others v Springwell Navigation Corporation.*[806] Despite having a non-advisory service relationship and no contractual clause for "advice", after analysing the cases the court suggested that neither advice nor an execution-only service had been recommended. However, the court accepted that some form of recommendation or advice had been given and that the financial institution therefore had a 'low level duty of care' which created the need to 'use reasonable care not to recommend a highly risky instrument' or 'not to make a negligent misstatement'.[807]

[800] *Henderson v Merrett Syndicates Ltd* (n 760).
[801] *Titan Steel Wheels Ltd v The Royal Bank of Scotland Plc* (n 763) at 78-83.
[802] ibid at 88.
[803] ibid at 94.
[804] *Bankers Trust International Plc v Dharmala Sakti Sejahtera* (1996) C.L.C. 518.
[805] *Green & Rowley v The Royal Bank of Scotland Plc* (2012) EWHC 3661.
[806] *JP Morgan Chase Bank and Others v Springwell Navigation Corporation* (n 762).
[807] ibid at 108.

The duty of care is also apparent in the FCA Handbook[808] in that power was granted to the FCA to introduce a new rule[809] which entrenches an obligation to exercise reasonable care and skill when providing a product or service. The new rule involves the responsibilities that businesses owe to their consumers. The main aim of the rule is to protect consumers against unfair practices and uphold a certain standard of care. In the context of liability, the rule itself does not create tort liability. However, in case of a breach of duty by the company which leads to harm and financial loss for the consumer, the affected party may pursue legal action in tort independently of the FCA.

7.4 Contract law

In the financial service industry, private law in the form of contract law exists as the legal basis for the relationship between the investment firm and the client. The legal form of the contract contains the rights and obligations of the parties, including the type of investment service offered – eg, execution-only, investment advice, or portfolio management – as well as the provider (firm) of the investment. The most limited type of investment is indeed the "execution-only" service which is based solely on the execution of the client's instructions to the firm. This is in line with the common-law principle that if an agreement has been reached between parties, its terms represent the scope of responsibilities and duties between them. The main aim of contract law is to facilitate transactions between parties at a reduced cost based on agreed terms. It also creates a supportive role in the investment process with the aim of minimising contract interventions.[810]

In the case of advisory services, the court uses contractual terms as the prime criteria before deciding on the possible liability. First, it looks if a legal relationship exists between parties and if the contract contains provisions addressing advisory services. If there is no contract it may indicate that there is no advisory obligation for financial firms. Parties, for their own benefit, might define their relationship and optimise the allocation of transaction risks by adding to the contract. A well-known example where the advisory service was clearly not provided by the financial institution or explicitly stated in the contract, is *Titan Steel Wheels Ltd v The Royal Bank of Scotland Plc.*[811] Here the court held that parties are bound by the contractual terms agreed to on conclusion of the contract. Similarly in *Bankers Trust International Plc v Dharmala Sakti Sejahtera,*[812] the court rejected the bank's duty as an advisor as Dharmala had not asked for any advice from the bank.

[808] FCA Handbook PRIN 2.1 No.12.
[809] House of Lords, Financial Services (Duty of Care) Bill, A Bill to require the Financial Conduct Authority to make rules for authorised persons to owe a duty of care to consumers in their regulated activities [HL Bill 41].
[810] Michael J Trebilcock, *The Limits of Freedom of Contract* (Harvard University Press 1997) 16.
[811] *Titan Steel Wheels Ltd v The Royal Bank of Scotland Plc* (n 763).
[812] *Bankers Trust International Plc v Dharmala Sakti Sejahtera* (n 804).

However, the liability of the financial advisor may arise on the basis of the provision of poor or misleading investment advice to the principal who suffered loss as a result. If both parties are equally knowledgeable there are no legal obligations to disclose specific information in pre-contractual negotiations. However, in terms of law - parties should refrain from providing misleading statements in a pre-negotiation stage. The applicable law is the UK Misrepresentation Act 1967, where parties may cancel the contract or claim damages in lieu of rescission.[813]

In most commercial transactions, one party is not legally obliged to disclose information about the goods to the other.[814] The common-law principle of "*caveat emptor*" promoted the efficiency of transactions and encouraged buyers to conduct proper research beforehand. The principle is rooted in the idea of "information asymmetry" in terms of which the seller typically has more information about the goods and service than the buyer.

Even though the principle is not mandatory, there are theoretical rationales for it. One of these is price accuracy in that it supports fairness and due performance in the economy. This is important as not all financial products can be checked for quality before or after purchase.[815] Consequently, mandatory information minimises information asymmetry and identifies an accurate price. Moreover, it helps to improve markets and ensure their sound functioning.[816] It is worth noting that while acquiring the relevant information may not be difficult, it can be a costly and time-consuming exercise.[817] The other rationale is to promote a free-market economy as both sellers and buyers act in self-interest.

For centuries *caveat emptor* has formed part of the fabric of the market and retains its place as a "commercial standard". This is similar to the COB's "best interest" principle in terms of which. the FSA was able to impose obligations on authorised firms requiring them to compensate consumers for a breach. This was confirmed in *R (ex parte British Bankers Association) v FSA.*[818] Following a concern raised by a number of consumers regarding the mis-selling of payment protection plans ("PPIs"), the FSA amended its Handbook provisions for handling PPA sale complaints and issued the Open Letter. The BBA attempted to challenge the lawfulness of the FSA Policy Statement,

[813] Susan Leung, 'The Price of Bad Advice' (2006) 25 International Financial Law Review 58.
[814] Paul G Mahoney, 'Mandatory Disclosure as a Solution to Agency Problems' (1995) 62 The University of Chicago Law Review 1047.
[815] Peter D Spencer, *The Structure and Regulation of Financial Markets* (Oxford University Press 2000) 125.
[816] John C Coffee, 'Market Failure and the Economic Case for a Mandatory Disclosure System' (1984) 70 Virginia Law Review 717.
[817] FCA, 'Occasional Paper No.1 - Applying Behavioural Economics at the Financial Conduct Authority' <https://www.fca.org.uk/publication/occasional-papers/occasional-paper-1.pdf> accessed 4 March 2022.
[818] *R (ex parte British Bankers Association) v FSA* (2011) EWHC 999 (Admin).

arguing that the FSA could not rely on principles to create obligations as principles are not actionable. This meant that the FSA had unlawfully empowered consumers to use redress in accordance with principles which conflicted with specific rules. These arguments, however, were rejected by the High Court which endorsed the FSA's actions stating that:

> 'The Principles are the overarching framework for regulation, for good reason. […] The overarching framework would always be in place to be the fundamental provision which would always govern the actions of firms, as well as to cover all those circumstances not provided for or adequately provided for by specific rules'.[819]

This case, on one hand, shows the need for the regulator to act in the case of a principle-based regulation because consumers themselves cannot rely on detailed rules. On the other, it indicates the connection that can be used between principle-based regulation and high-level principles.

7.5 Interaction of COBS with Fiduciary Duty and Private Law

7.5.1 Private law

The relationship between financial advisor and client was traditionally based purely on private law. The situation changed once regulations started to be regarded as relevant to the relationship. Private-law concepts and regulations are not synonymous. Traditionally, private law is based on formal legal rationality, whereas regulations are drafted to achieve policy goals. As pointed out earlier, the conduct of business rules, which are now creating a framework for investment services, originated in private law, notably the law of contract, to strengthen investor protection and build greater confidence in financial markets. However, the rules were not merely copied from private law to public regulations.

One of the differences between these two concepts is their application. The private law is generally applied *ex-post*, while the standard of rules is *ex-ante*. The COB is then classified as public law but can deal with a contractual relationship which falls under private law – in essence, COB and private law overlap. The case of mis-selling offers a good example in that customers brought their case to both the regulator and the court. In the context of private enforcement, it is worth mentioning that legal costs are not the only obstacle. The plaintiff is also obliged to prove the violation of law on which his/her claim is based.[820] The COB, on the other hand, has advantages when it comes to enforcement in that a regulator has the power to use a standardisation process in large "mis-selling"

[819] ibid at 161 (Ousely J).
[820] Hugh Collins, *Regulating Contracts* (Oxford University Press 1999) 89.

cases which are more quickly resolved than under "normal" court processes. However, this does not apply in individual disputes which must be judged on a case-by-case basis by the courts. FSMA 2000 also introduced the "right of action" which, as we saw earlier, is only available to private persons. It is worth noting that compensation is not automatic under the right of action, and the breach must be proved in court. The contravention must clearly show the consumer's loss as in *Morgan Stanley UK Group v Puglisi Cosentino*[821] where the court found that regulatory rules of suitability had been breached and had led to a material loss for consumers, even if the misrepresentation claim under common law was unsuccessful. Similarly, in *Zaki & Others v Credit Suisse (UK) Limited*[822] the court based its decision on regulatory rules without relying on private law, even though the private person claimed compensation under the "right of action".

Overall, private law follows statutory regulation and uses it to decide whether proper "skill and care" was applied while doing business.[823] This was confirmed in *Shore v Sedgwick Financial Services Ltd*[824] where the court confirmed the priority of regulatory rules in determining the duties of the financial institutions. Moreover, not following the rules will be seen as a failure of regulatory requirements. The main difference between private law and statutory rules is that in a situation of conflict, rules cannot override private law, and it is left for a court to decide. Example here are the Conduct rules set up by the FCA, which provide mandatory provisions that cannot typically be waived by private contract. When conflict arise, regulatory rules take precedence, but in cases where private law conflicts with statutory rules, it is ultimately for the court to resolve how the law applies and whether the private agreement can override the statutory obligations. The aim is to ensure that consumer protection is upheld.

It is worth adding that as regards both private law and COB, an important question is whether an advisory relationship with the customer exists as this is what drives obligations to choose the correct product. As was mentioned earlier, from a private law perspective the court will prioritise contractual terms. If there are no references or disclaimers regarding the advisory service there is no advisory relationship and no advice is given despite the existence of a factual relationship.[825] In the case *Grant Estates Limited v The Royal Bank of Scotland Plc*[826] the court distinguished between the existing legal and factual advisory relationships. Based on the case, Grant Estates Ltd entered into the Interest Rate Swap Agreement with RBS in the belief that the IRSA would provide protection against adverse

[821] *Morgan Stanley UK Group v Puglisi Cosentino* (1998) C.L.C. 481.
[822] *Mohamed Magdy Zeid v Credit Suisse* (n 688).
[823] Alastair Hudson, *The Law of Finance* (1st edn, Sweet & Maxwell 2009) 2–28.
[824] *Shore v Sedgwick Financial Services Ltd* (2008) PNLR 244 at 161.
[825] *Standard Chartered Bank v Ceylon Petroleum Corporation* (2011) EWHC 1785; *Wilson v MF Global UK Ltd* (n 615).
[826] *Grant Estates Limited v The Royal Bank of Scotland Plc* (2012) CSOH 133.

movements in interest rates. As the company ran into financial difficulties during the market downturn in late 2008, it challenged the bank claiming that it had received advice to enter the IRSA. The bank denied the allegations on the basis that the RBS stated in the contract that it would not provide advice in relation to the merits of particular transactions and would give no investment advice. The court dismissed the case suggesting that the claim of the company was irrelevant as a matter of law. A similar situation arose in *JP Morgan v Springwell Navigation Corporation*[827] . The customer sought to recover loss suffered from the purchase of complex products on the basis that the bank owed a duty of care to advise. However, there was no written agreement between the parties stipulating that advice would be given. In the absence of an agreement, the court held that there was no duty of care owed to the customer.

This is the opposite of the COB rules where the focus is on a factual relationship between advisor and customer. The COBs also apply a "suitability" [828] requirement for advisory service and an "appropriateness"[829] rule when execution-only service has been offered. In general, the conduct of business regulations provides a higher level of care. An example is the suitability rule, which requires the financial institution to "know your clients" before providing any advice, and based on collected knowledge, the relevant product can be offered.

Further, a different approach also arises in relation to the communication standards – the "fair, clear and not misleading communication"[830] rule in the COB, and misrepresentation in private law. Here, the regulatory rule is the stricter as it requires the financial institution not to "exclude or restrict" or "rely on any exclusion or restriction" of any duty to the consumers.[831] This means that disclaimers or additional clauses in the agreement between parties cannot prevent regulators from imposing sanctions for misleading communications. Moreover, the regulator may sanction the financial institution when it wrongly explains the products to the clients, even without evidence that it has caused the client to suffer losses.[832] Fair communication must be delivered in a suitable way.[833] This helps to increase protection for a consumer. The information provided by the institutions must also be clear so that consumers can understand the product and the associated risks. Private law does not impose an obligation on the institution to ensure that clients understand its explanation of the

[827] *JP Morgan Chase Bank and Others v Springwell Navigation Corporation* (n 762).
[828] FCA Handbook COBS Chapter 9.
[829] ibid COBS Chapter 10.
[830] ibid COBS 4.2.1R.
[831] ibid COBS 2.1.2R.
[832] FCA, 'Final Notice – Santander UK PLC' <https://www.fca.org.uk/publication/final-notices/santander-uk-plc.pdf> accessed 20 January 2022.
[833] FCA Handbook COBS 4.2.2G (1).

products.[834] This is founded in the principle of *caveat emptor* in terms of which the buyer is responsible for checking the product before buying. Also, it does not treat opinion as misrepresentation, as can be seen in the *JP Morgan Chase Bank v Springwell Navigation* case, where the court stated that the comment made by the bank regarding the Russian economy was no more than an "opinion" and did not amount to misrepresentation.[835]

7.5.2 Fiduciary Duty and Conduct of Business Rules

With the introduction of the FSA in 1986, use of the common-law protection of investors waned as the realisation dawned that the new statutory regulations governing investments offered more effective control than the common-law rules. Ever since further regulations have focused on applying more standards and *ex-ante* enforcement. The relationship between a new regulatory system and fiduciary obligations and concern over their possible mismatch was referred to the Law Commission for review.

Under private law, a fiduciary is a person who has undertaken to act on behalf of another person based on trust and confidence. The rules express the following: to act in good faith, have no conflict of interest, not to benefit the principal, and not to act without the explicit consent of the principal.[836] The core principle is loyalty. It is worth noting that even if the financial advisor is not treated as the fiduciary in the way an agent or director is , it is 'commonplace for the courts to find that the advisor has placed himself under fiduciary obligation'.[837] The fiduciary duties are then created to protect the vulnerable principal. However, the agreement between them may be modified or amended – although the courts may not accept such an agreement where the fiduciary has been dishonest to his or her principal.

The link with the fiduciary duty can also be found in the COBS requirements. It can be said that widely speaking, the concept of regulatory requirements is based on private-law aspects. The FSA "intelligently copied"[838] the regulatory rules from COB of MiFID with the adoption of fiduciary duties to strengthen investor protection. One of the principal rules is that financial institutions must act in the best interest of their clients.[839] This principle can be compared to the fiduciary duty to act in good

[834] *Crestsign Ltd v National Westminster Bank Plc and Royal Bank of Scotland Plc* (2014) EWHC 3043.
[835] *JP Morgan Chase Bank and Others v Springwell Navigation Corporation* (n 762).
[836] *Bristol and West Building Society v Mothew* (n 38).
[837] *Investors Compensation Scheme v West Bromwich Building Society* (1999) Lloyds Rep PN 496 at 509.
[838] FSA, 'Reforming Conduct of Business Regulation, Consultation Paper 6/19 (Including Proposals for Implementing Relevant Provisions of the Markets in Financial Instruments Directive, and Related Changes to SYSC, DISP, TC, SUP and Other Handbook Modules)' (n 638).
[839] FCA Handbook COBS 2.1.1 (1).

faith. Another rule that is interpreted as a fiduciary duty is 'the fair, clear and not misleading communication rule'.[840] The rule provides that: '[a] firm must ensure that a communication or a financial promotion is fair, clear and not misleading'.[841] This means that information provided by the financial institution must be both correct and fair. Fair communication can be understood as the appropriate information delivered to a client. Hudson also contends that fairness requires financial obligation, and the firm should provide justification for what information is suitable, appropriate, and in the client's best interests.[842]

Further, full disclosure of fees and the prohibition on receiving any non-monetary benefit or fees from a third party is akin to the fiduciary rules 'not to profit out of the trust' and 'not to act for his benefit or the benefit of a third party without the consent of the principal'.[843]

The Law Commission also highlighted the importance of the suitability rules in the COBS which require that a firm must 'take reasonable steps to ensure that a personal recommendation, or a decision to trade, is suitable for its client'.[844] The firm is obliged to obtain necessary information regarding the client, including knowledge and expertise in the investment firm, financial situation, and investment objectives.

It is essential to note that regulatory rules of suitability apply to independent financial advisers (IFA) if they recommend contract-based schemes to their clients. This was discussed widely in the Consultation Paper with a leading case of *Loosemore v Financial Concepts*[845] where a financial advisor was held liable for breach of suitability rules and mis-selling pension schemes 'the skill and care to be expected [from the IFA] would ordinarily include compliance with the rule '.[846] From many examples it was noted that the courts recognise that the advisory duty of care equates with the regulatory rules of suitability. However, it is worth adding that the suitability rule under COBS imposes a stricter obligation on the financial institution than the principle of *caveat emptor* in private law. It is worth adding that the rule does not apply across all financial transactions, e.g. is banks loans transactions. The main reason for this is that COB rules create an obligation for financial institutions

[840] ibid COBS 4.2.1 (1)R.
[841] ibid.
[842] Hudson (n 823) 10–19.
[843] Gerard McMeel and John Virgo (eds), *McMeel and Virgo on Financial Advice and Financial Products* (3rd edn, Oxford University Press 2014).
[844] FCA Handbook COBS 9.2.1R.
[845] Law Commission, 'Fiduciary Duties of Investment Intermediaries: A Consultation Paper. No. 215' (n 735) 11.65-11.68.
[846] Sentence of HHJ Raymond Jack QC from *Loosemore v Financial Concepts* (n 614).

and cannot be modified or limited by the contract, while in the case of *caveat emptor* the buyer is responsible for reviewing and checking the products before concluding the agreement.

Suitability is an example as it requires the advisor to follow strict standards when providing advice. The courts have also made it clear that in common law the fiduciary duty allows greater flexibility than the regulatory rules in the investment process. On the other hand, despite being more flexible the common law is still based on default rather than mandatory rules. It may lead to a situation where the common law rule will be avoided at the beginning of the contract. This will not arise under the COBS as the obligations will need to be performed, and terms cannot be amended or limited by additional disclaimers within the contract.[847]

Looking at the similarity of fiduciary duty and regulation, it is worth considering why they were duplicated or repeated into COB rules. Johannes Kondgen suggests that 'transforming duties of contractual or precontractual origin into public-law obligations ensures that rules of conduct become immune against any attempt to contact them out' which allows for the possibility of consumers using a private action in case of a breach.[848]

To summarise: the Conduct rules are the form of mandatory regulations which, in the retail sphere, cannot be amended, as opposed to the common-law fiduciary duty which is open to contractual amendment or modification. In the UK system regulatory rules are termed quasi-fiduciary duties and are at times recognised as more precise fiduciary obligations on advisors. On the other hand, regulatory requirements impose additional obligations on financial institutions or advisors but are unlikely to reduce the regulatory burden. In short, it can be said that, structurally, private law and public law (COB) complement each other.[849]

7.6 Conclusion

In the current financial advice regime in the UK, the common law continues to play a residual role, although statutory regulation and regulatory frameworks complement it. Robo-advice follows the same path as no separate legislation has been introduced. The common law still influences financial transactions and disputes. The courts consider precedent in resolving cases involving financial advice

[847] FCA Handbook COBS 2.1.2R.
[848] Johannes Kondgen (ed), 'Rules of Conduct: Further Harmonisation' in Guido Ferrarini, *European securities markets: The investment services directive and beyond* (Kluwer Law International 1998) 117.
[849] Jonathan Hay and Andrei Shleifer, 'Private Enforcement of Public Laws: A Theory of Legal Reform' (1998) 88 American Economic Review 398.

and negligence. The principles also assist in determining whether an advisor breached his or her duty of care to the client. Regulatory regimes coexist and attempt to ensure legal certainty and balance safety across the financial markets. They also impact on ensuring fair and transparent practices across the industry, with a key focus on creating the correct environment for consumers. As was noted in this chapter, the current COBS rules originated in private law, notably in contract law. It is, therefore, unsurprising that the rules might overlap with private law to the advantage of customers – eg, in the event of enforcement. Where a rule is breached, eg, in a mis-selling case, enforcement can be based in both private and public law. Consumers institute private claims before the courts and reach out to the regulator assist in the speedy resolution of the case by using the standardisation process. Hence, the structures of private and public law coexist. It is essential to consider regulatory requirements and private law obligations when examining legal matters in the financial market.

8 Chapter VIII: Conclusion

8.1 Discussion of the thesis

The central research question of this thesis was:

> How has regulation evolved over time to shape the development and implementation of automated advice services in financial markets, and what impact has this had on the industry to maintain transparency and resilience?

To answer this question, the thesis analysed the evolution of the regulatory landscape, technological innovations and the integration of artificial intelligence in automated advice services. The thesis uncovered several critical insights and key findings in each chapter and its interpretation in addressing the research question.

The analyses in Chapter Two revealed that the regulatory landscape in the UK has transitioned from reliance on common law and self-regulation to a more formal statutory regulation framework reflected in the Financial Service Act of 1986 and the later version of the Financial Services and Markets Act of 2000. The change marked a milestone in increasing customer protection and improving the financial system. Further, the core objectives of regulation – promoting public awareness, reducing financial crime, protecting investors, and maintaining confidence in the financial system – have been pivotal in shaping the regulatory environment. The promotion of competition and the international competitiveness objectives are also considered. In addition, the chapter emphasises the economic rationale for regulation by addressing relevant externalities, market imperfections, information asymmetry, and moral hazard. It has demonstrated that regulations are vital in addressing the imperfections which could lead to market inefficiency. The transformation and digitalisation of financial markets, with a key focus on robo-advisors, present new challenges for regulators. However, the fundamental objectives and rationale remain the same for robo-advice despite technological advances.

At this point, the evolution of UK's regulatory framework is crucial in understanding the context in which robo-advice services have developed. As they become more important the current framework provides a foundation for regulating digital advice services. Even though the financial landscape is changing, the regulatory environment is able to adapt and remain resilient. The core principles such as consumer protection and market stability remain at its centre.

Further analysis in Chapter Three identified that digitalisation, like automated advice services, has transformed financial services by offering consumers more tailor-made services. But it has also

introduced regulatory uncertainty. The aim of regulation is to maximise the benefits of innovations and minimise their adverse effects. Finding the correct balance between regulation and innovation is key. Imposing too many new regulations may increase the complexity of the law, raise the cost of compliance, and challenge traditional competitive strategies. However, the key finding in this chapter centres on the principle of technology neutrality. This principle is crucial as it ensures that regulations do not favour specific technologies and promote innovation by providing a level playing field. It allows the market to decide which technology suits it best and promotes innovation. Many rationales already apply to the technology-neutral approach, such as non-discrimination, suitability, consumer certainty, and any attendant benefits. The approach appears to offer a sound choice in that it allows regulators considerable flexibility and facilitates speedier adoption of new services in financial markets – eg, robo-advisors. The principle of neutrality fosters innovation while maintaining regulatory oversight. The correct balance needs to be struck to limit regulatory gaps that could undermine consumer protection or lead to market inefficiencies. The current UK approach is that to remain effective, regulation must evolve hand in hand with innovation.

In Chapter Four, the thesis analyses the impact of AI applications – a key element in running robo-advice systems. The chapter identifies numerous benefits associated with the application of new technology, including cost reduction and more customised advice which is cognisant of the customer's risk profile. Both sides of AI were examined in conjunction with challenges, such as algorithmic bias, the "black box problem", liability, and regulatory concerns.

The application of AI in the UK has no dedicated and specific regulations but relies on the technology-neutral approach which focuses on AI governance principles rather than financial regulations. It was a strategic decision taken by the UK to prioritise innovation while managing risk internally. The thesis emphasised the principal neutrality role in fostering innovation while ensuring fair competition. The key point in choosing the technology-neutral approach is for regulators first to understand the technology and only then to regulate it. This approach requires robust internal governance processes to mitigate risks such as algorithmic bias. The firms are also required to comply with domestic regulations and regulatory requirements to protect consumers.

Chapter Five presented the key subject of the thesis – automated advice services which have revolutionised financial markets by combining technology and investment. Based on AI technology, robo-advice services offer personalised investment advice for customers. By servicing the client online, digital advice provides numerous benefits including accessibility, low costs, diversification, efficiency, and low minimum investment requirements. But it also faces challenges such as

transparency issues, algorithms and data bias, lack of human interaction, data breaches, or cyber-security risks. Further, the thesis has identified that there is no specific legislation governing automated advice services in the UK. Instead, current regulation for traditional financial advice is applied with a focus on meta-regulation which encourages firms to develop their own internal governance processes but still align with broader regulatory principles.

The application of existing financial regulations to robo-advisors already shows the adaptability of the UK's regulatory framework. However, the current framework may not fully address the unique challenges AI-driven financial services pose. At this point, meta-regulation offers flexibility due to the possibility of linking a technology-neutral approach with standard regulations. Firms can innovate while remaining aligned with broader regulatory goals. The approach implies the need for continuous monitoring by regulators to ensure adequate protection for consumers.

To fulfil the above analysis Chapters Six and Seven presented the development of traditional financial advice regulations in the UK. They show the shift towards prioritising investor protection and rebuilding trust in the financial sector. The common-law elements such as the fiduciary duty and the duty of care, were also highlighted. These continue to play a significant role in the regulation of financial advice, including automated services, and provide a foundation for consumer protection. The statutory regulations and common law complement one another in providing even better consumer protection. The similarity in approach of these two legs of protection can be found in the COBs in the form of suitability, client's best interests, and disclosure of information rules. When dealing with investment advice, mandatory rules ensure fair treatment and consumer protection. By overlapping with private law there is an advantage in the form of redress available in both private and public law. In the financial advice regime, the combination of both approaches fulfils the legal regime and ensures the correct treatment of consumers.

The historical evolution of financial advice regulations provides an essential context for understanding the regulatory environment governing robo-advisors. Despite the digital transformation, the regulatory objectives and underlying principles guiding regulation persist, highlighting the robustness of the regulatory framework and flexibility of the UK approach. The integration of the new approach in robo-advice helps maintain high standards of accountability and transparency and ensure a stable and robust financial system even as financial services become increasingly automated.

Collectively, the above findings address the research question by illustrating how regulation has responded to the development of robo-advice in financial markets. The regulatory landscape in the UK, due to its adaptability, integration with common-law principles, and continuity, has played a critical role in managing the challenges posed by technological innovation, particularly in the context of AI and robo-advisors. By choosing the technology-neutral approach, the UK effectively balances innovation with oversight, keeping an eye on any potential risks associated with the development of automated services. The FCA and other regulators remain supportive of innovation in financial technology and work closely with businesses to learn more and understand the challenges.

The thesis concludes that regulatory changes have not only shaped the development of robo-advisors but also ensured that they remain aligned with broader goals, such as consumer protection, market integrity, and financial system stability.

8.2 Implication of the thesis

The research presented in this thesis has significant implications for financial regulation, the financial industry, consumers, and policymakers. These implications arise from the findings and interpretations discussed earlier, which explored the evolution of regulation in shaping automated advice services (robo-advisors) in financial markets.

The findings identified that the key aspect of financial markets is maintaining the flexibility and adaptability of the regulatory framework in the face of constantly changing financial technology, such as AI-driven robo-advisors. Regulators need to monitor the market and be prepared to make changes if required without limiting innovation. The correct regulatory balance must be preserved. The principle of technology neutrality currently applied, is one of the forms which help foster innovation. This, however, requires regulators to remain vigilant of specific risks linked with new technology. In the coming years the need for tailored regulations might arise in the wake of advanced evolution of AI and other technologies, and new challenges may arise. Current ethical AI practices should be a priority in policy discussions to ensure that AI-driven financial services represent fairness and transparency. This will also require international cooperation and dialogue among regulators, industry, and consumers to help manage the cross-border implications of AI-driven financial services and ensure consistent regulatory standards.

Furthermore, financial institutions and firms specialising in automated advice services need to adapt their business models and strategies in response to evolving regulations. This requires maintaining

and improving robust internal governance processes. This, in turn, involves complying with external regulations, mitigating any potential risks that AI and automated advice services may pose, and being prepared for any shifts in regulatory expectations.

The findings also emphasise the importance of robust consumer protection in the context of automated advice services, especially those offered to limit access to human advisors. This implies that consumers need to be adequately informed of the benefits and risks associated with robo-advisors. They play a key role in enhancing financial inclusion by creating affordable and accessible services for everyone. On the other hand, there is also a need for continuing monitoring to ensure that these technologies will not create new forms of exclusion or boost existing inequalities.

The findings of this research imply that further research can be considered to explore the long-term effects of current regulatory approaches to innovation in the robo-advice context. It could focus on comparative studies across different regulatory frameworks with particular attention to the co-evolution of technology and regulation and the efficacy of internal governance in managing AI risks.

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