AN ETHICAL PROPOSAL FOR A FLOURISHING DIGITALISED FINANCIAL SYSTEM

Shazia Khan Afghan

Submitted in partial fulfilment of the requirements of the degree of doctor of philosophy

Supervised by

Professor George Alexander Walker
and
Gavin Sutter

Centre for Commercial Law Studies,
Queen Mary, University of London

15 March 2023

I, Shazia Khan Afghan, confirm that the research included within this thesis is my own work.

I attest that I have exercised reasonable care to ensure that the work is original, and does not to the best of my knowledge break any UK law, infringe any third party's copyright or other Intellectual Property Right, or contain any confidential material.

I accept that the College has the right to use plagiarism detection software to check the electronic version of the thesis.

I confirm that this thesis has not been previously submitted for the award of a degree by this or any other university.

The copyright of this thesis rests with the author and no quotation from it or information derived from it may be published without the prior written consent of the author.

Signature:
Date: 15 March 2023

ACKNOWLEDGEMENTS

This thesis is the result of my studies as a PhD candidate at the Centre for Commercial Law Studies, Queen Mary, University of London. I am indebted to Professor George Alexander Walker, my supervisor, for his encouragement, support and guidance in the supervision of my thesis. I had been apprehensive to focus this study upon artificial intelligence (AI) in financial services. However, my apprehensions were soon dispelled with his support. On reflection, I doubt that this research would have been as valuable, and therefore engaging, if I had not focused upon AI in financial services. I am also indebted to him for his style of supervision. He provided me with the freedom to develop my thoughts and ideas. Meanwhile, his valuable feedback significantly improved the quality of this work. I am also very grateful to Gavin Sutter, my second supervisor, for his insightful thoughts and encouragement with this research.

I would also like to express my gratitude to the Institute of Banking and Finance Law at the Centre for Commercial Law Studies, Queen Mary, University of London. The work of the Institute has provided a strong intellectual foundation for this research. I am particularly grateful to my LLM Banking and Finance professors, academics and visiting academics who through their teaching, research and publications, projects and conferences have nurtured my academic development prior to embarking upon this thesis. I am grateful to Dr Kara Tan Bhala for her inspiring lectures on the foundations of ethics. I am also grateful to Dr Constanza Russo and Sir William Blair QC who gave me the opportunity to contribute to the work of the Law and Ethics in Finance Project. I would also wish to thank Professor Onora O'Neill for her eminent instruction on practical ethics while I worked as researcher for the Financial Services Culture Board (the Banking Standards Board, as they were then) on behalf of the Law and Ethics in Finance Project. Professor O'Neill has been a great intellectual influence and a guiding light. I would like to express my gratitude to Michael Blair QC for elucidating the origins of the FCA Principles for Businesses, which have greatly inspired this research. I would also like to express my deepest gratitude to Sir Gordon Langley QC for his insightful comments on an earlier draft of this thesis, and for his generous support and mentoring over the last 20 years. Finally, I am indebted to my beloved father, mother, siblings and spouses, nephews and niece, extended family and friends who unfalteringly provided love, encouragement, and support (and much needed distraction) throughout this period of research.

ABSTRACT

The UK financial services industry is undergoing significant transformative digitalisation through the development of information technology, increased internet communications, computer speed and programming capacity, and application of big data to traditional financial services. In particular, the use of Artificial Intelligence (AI), i.e. intelligence simulated by technological means, and 'machine learning', i.e. automatic learning by machines and software based on a computational and statistical process, is becoming increasingly and rapidly prevalent in financial services. The purpose of this thesis is to examine whether, in the light of the potential risks that AI and machine learning will pose upon society, our current ethical, legal and regulatory standards are satisfactory. Primarily, this thesis observes that the separation of ethics as an academic discipline from economic theory and modern finance theory has undermined the efficacy of the ethical, legal and regulatory standards to regulate the financial system. Therefore, it proposes an integrated ethical approach to UK financial regulation, which seeks to regulate the relationship between action, character of the actor, and the consequences of action. The proposed integrated ethical approach is anchored in the 'social licence for financial markets', which helps us to focus on the purpose of financial activity to serve the human good, and, ultimately, to improve the well-being of society. This thesis argues that, further to adopting an integrated ethical approach, we should *refine* our current ethical standards, and introduce *new* ethical standards. This thesis demonstrates that while an integrated ethical approach may be applied to programme AI and machine learning technology to behave ethically using, overall responsibility for AI and machine learning should remain with humans. In addition, in light of potential responsibility gaps, specially designed liability rules are required. Finally, this thesis will recommend a series of legal and regulatory reforms with the ultimate goal of cultivating a flourishing digitalised financial system.

TABLE OF CONTENTS

Table of Cases X
Table of Legislation XIV

INTRODUCTION 1

CHAPTER ONE *THE FINANCIAL REGULATORY SYSTEM IN THE UK* 9
1. FINANCIAL REGULATION IN THE UK 9
1.1. The financial services regulatory architecture 9
1.1.1. Financial Conduct Authority 10
1.1.2. Prudential Regulation Authority 12
1.1.3. HM Treasury and Parliament 13
2. RESPONSE TO THE FINANCIAL CRISES AND SCANDALS IN THE UK 14
2.1. Banking & financial crises 14
2.1.1. The Global Financial Crisis 14
2.1.2. The UK's regulatory response 15
2.1.3. Legislative reforms 27
2.2. Financial scandals 30
2.2.2. Interest rate hedging products 32
2.2.3. London Capital & Finance 33
2.2.4. Cryptoassets 36
3. AI IN FINANCIAL SERVICES 40
3.1. Future challenges for financial regulation 40
4. THE PHILOSOPHY OF FINANCIAL REGULATION 42
4.1. The purpose of the financial system 42
4.2. The rationale for financial regulation 43
4.3. The objectives of financial regulation 45
4.4. Ethical challenges to economic assumptions of financial regulation 46

CHAPTER TWO *ETHICS* 48
1. INTRODUCTION 48
1.1. A brief history of ethics 48
1.2. Ethics and morality 50
1.3. Theories of morality 51
1.4. Morality and the law 52
1.5. Typology of ethics 54
1.6. A framework for the practice of ethics 55
2. TRADITIONAL ETHICAL THEORIES 57
2.1. Deontological theory 57
2.1.1. Monotheistic religious traditions 58
2.1.2. Greek Stoic tradition 58
2.1.3. Kantian Ethics 59
2.1.4. Criticisms 62
2.2. Utilitarianism 63
2.2.1. Rule Utilitarianism 65

2.2.2. Act Utilitarianism 66
2.2.3. Criticisms 67
2.3. Virtue ethics theory 68
2.3.1. The nature of virtues 71
2.3.2. Teleological virtue ethics 73
2.3.3. Criticisms 74
2.4. Justice theories 75
2.4.1. Distributive justice 76
2.4.2. Social contract theory 77
2.4.3. Corrective justice 78
2.5. A pluralist conception of ethics 79
3. ETHICS IN ECONOMIC THEORY 82
3.1. General equilibrium theory 82
3.2. Politics, ethics and economics 84
3.3. Ethical relativism 85
3.4. Ethical economic theory 87
4. FINANCIAL ETHICS 88
4.1. Modern Finance Theory 88
4.2. The purpose of finance 89
4.3. The social licence for finance 90
4.4. Ethical foundations of financial law 91
5. INTEGRATED ETHICAL REGULATORY FRAMEWORK 92

CHAPTER THREE *STANDARDS IN BANKING AND FINANCE* 97
1. REGULATORY STANDARDS 97
1.1. High level standards 97
1.1.1. FCA Principles for Businesses 97
1.1.2. FCA Senior Management Arrangements, Systems and Controls (SYSC) 100
1.1.3. COCON Code of Conduct 101
1.1.4. Statements of Principle and Code of Practice for Approved Persons (APER) 102
1.1.5. FCA Fit and Proper test for Employees and Senior Personnel (FIT) 103
1.1.6. FCA Training and Competence (TC) 104
1.1.7. FCA General Prudential Sourcebook (GENPRU) 104
1.1.8. PRA Fundamental Rules 105
1.1.9. PRA General Organisational Requirements 106
1.1.10. PRA Fitness and Propriety 106
1.2. Conduct standards 107
1.2.1. The FCA Conduct of Business Sourcebook rules 107
1.2.2. PRA Conduct Standards 111
1.3. Other regulatory standards 111
1.3.1. Market manipulation 112
1.3.2. Causing a financial institution to fail 113
1.3.3. Stewardship 114
1.3.4. Corporate governance 115
2. LEGAL STANDARDS 115
2.1. Common law 116
2.1.1. Duty to advise 116
2.1.2. Duty not to misstate information 117
2.1.3. Duty to explain the nature and effect of a transaction 118

2.2. Agency law 119
2.2.1. General duty to carry out contractual instructions of principal 121
2.2.2. Duty to comply with lawful instructions of principal 122
2.2.3. Duty to act only within limits of authority 122
2.2.4. Duty to use reasonable care, skill and diligence, and reasonable despatch 122
2.2.5. Duty not to allow interests to conflict with those of principal 123
2.2.6. Duty to make full disclosure 124
2.2.7. Duty not to take advantage of position 124
2.2.8. Duty not to take secret bribes or secret commissions 125
2.2.9. Duty not to delegate office 126
2.2.10. Duty to account 126
2.3. Statute 126
2.3.1. Companies Act 2006 127
2.3.2. Supply of Goods and Services Act 1982 129
2.3.3. UCTA 1977 129
2.3.4. Misrepresentation Act 1967 129
3. CURRENT ETHICAL STANDARDS 131
3.1. Integrity 131
3.2. Skill, care and diligence 134
3.3. Prudence 136
3.4. Loyalty 138
3.5. Fairness 139
4. PROPOSED ETHICAL STANDARDS 142
4.1. Honesty and trustworthiness 143
4.2. Fairness 2.0 144
4.3. Sustainability and stewardship 146
4.4. Justice and legitimacy 147

CHAPTER FOUR *STANDARDS IN GENERAL AI* 150
1. INTRODUCTION 150
1.1. The phenomenon of AI 150
1.2. The vitality of machine learning 152
1.3. Deep learning and artificial neural networks 155
1.4. Strong and weak AI 156
1.5. Super-intelligence and the control problem 157
1.6. AGI vs human-level intelligence 158
2. REGULATORY STANDARDS 159
2.1. General UK regulatory infrastructure 160
2.2. The FCA, BoE and PRA 160
3. LEGAL STANDARDS 163
3.1. Law of contract 165
3.1.1. Sale of Goods Act 1979 165
3.1.2. Supply of Goods and Services Act 1982 167
3.2. Law of negligence 169
3.3. Data protection and confidentiality obligations 174
3.4. Discrimination 174
4.1. Global convergence of standards 178
4.1.1. Transparency 178
4.1.2. Justice, fairness and equity 179

4.1.3. Non-maleficence ... 179
4.1.4. Responsibility and accountability ... 180
4.1.5. Privacy ... 180
4.1.6. Beneficence ... 181
4.1.7. Freedom and autonomy ... 181
4.1.8. Trust ... 182
4.1.9. Sustainability ... 182
4.1.10. Dignity ... 182
4.1.11. Solidarity ... 182
4.2. Inadequacy of ethical principles ... 183
5. GENERAL ETHICAL ISSUES ... 184
5.1. Introduction ... 185
5.2. Applied ethics v normative machine ethics ... 185
5.3. Logical empiricism and AI ... 186
5.4. The purpose of AI ... 188
5.5. Machine morality ... 189
5.6. Artificial moral autonomy and agency ... 190
5.7. Artificial moral responsibility ... 192
5.8. Artificial legal personality ... 196
5.9. Rights to an explanation ... 198
6. THE ETHICAL FRAMEWORKS ... 199
6.1. 'Top down' morality ... 200
6.1.1. Isaac Asimov's Laws of Robotics ... 201
6.1.2. Kant's Categorical Imperative ... 202
6.1.3. Utilitarianism ... 207
6.2. 'Bottom up' morality ... 209
6.2.1. Evolution-inspired approach ... 209
6.2.2. Learning based approach ... 210
6.3. Hybrid 'top-down' and 'bottom up' morality ... 211
6.3.1. Virtue ethics ... 211
6.4. Non-rational morality ... 212
6.5. Conclusion ... 213
7. CONCLUSION ... 215

CHAPTER FIVE *RECOMMENDATIONS* ... 218
1. OVERVIEW OF THESIS ... 218
1.1. The value of ethics ... 218
1.2. Ethical foundations of financial regulation ... 218
1.2.1. The purpose of the finance system ... 219
1.2.2. Integrated ethical approach to financial regulation ... 219
1.2.3. The social licence for financial markets ... 220
1.3. Ethical standards for banking and finance ... 221
1.4. Ethical standards for general AI ... 222
1.5. Normative ethical framework for AI ... 222
2. RECOMMENDATIONS ... 224
2.1. Introduction ... 224
2.2. UK overarching statutory architecture ... 224
2.2.1. Revised statutory objectives ... 224

2.2.2. New regulatory principles 226
2.2.3. Further amendments to FSMA 2000 226
2.3. The regulators' rulebooks........ 228
2.3.1. PRIN and related provisions........ 228
2.3.2. New Ethics Sourcebooks........ 228
2.3.3. GENETHICS Sourcebook........ 229
2.3.4. TECHETHICS Sourcebook........ 231
2.3.5. Systems and controls........ 232
2.3.6. Consumer redress and enforcement 233

APPENDIX 1 *Overview of Ethical Principles*........ 234
APPENDIX 2 *Proposed amendments to FSMA 2000*........ 236

Table of Cases

Ajami v Controller of Customs [1954] 1 WLR 1405

Anangel Atlas Compania Naviera SA v Ishikawajima- Harima Heavy Industries [1990] 1 Lloyd's Rep 167

Andrews v Ramsay [1903] 2 KB 635

Armstrong v Jackson [1917] 2 KB 822

Attorney-General for Hong Kong v Reid [1994] 1 AC 324

Bankers Trust International Plc v PT Dharmala Sakti Sejahtera (No.2) [1996] C.L.C. 518 QBD (Comm)

Boardman v Phipps [1967] 2 AC 46

Bolam v Friern Hospital Management Committee [1957] 1 WLR 582

Boston Deep Sea Fishing v Ansell (1888) 39 Ch D 339

Bristol & West Building Society v Mothew [1998] Ch 1

Bristol and West Building Society v Mothew [1996] EWCA Civ 533

Brown v Raphael [1958] Ch 636

Commissioners of Customs & Excise v Barclays Bank [2006] UKHL 28

Crestsign Ltd v National Westminster Bank Plc [2014] EWHC 3043 (Ch)

Dufresne v Hutchinson (1810) 3 Taunt 117

Dunlop Haywards (DHL) Ltd v Barbon Ins Group Ltd [2010] Lloyd's Rep IR 149

FHR European Ventures LLP v Mankarious [2013] 1 Lloyd's Rep 416

Finch v Lloyds TSB Bank plc [2016] EWHC 1236 (QB)

First Financial Advisers Ltd v FSA [2012] UKUT B16 (TCC) 5

Ford v FCA [2018] UKUT 0358 (TCC)

Fullwood v Hurley [1928] 1 KB 498

Garnac Grain Co Inc v HMF Faure and Fairclough Ltd [1968] AC 113

Gorham v British Telecommunications Plc [2000] 1 WLR 2129

Harmer v Cornelius (1885) 5 CBNS 246

Hayes v Regina [2015] EWCA Crim 1944

Hedley Byrne & Co v Heller & Partners Ltd [1964] AC (HL) 465

Henderson v Merrett Syndicates Ltd [1995] 2 AC (HL) 145

Hoodless and Blackwell v FSA [2003] FSMT 007

Hovenden & Sons v Millhoff (1900) 83 LT 41

Hurstanger Ltd v Wilson [2007] 1 WLR 2351

IFE Fund SA v Goldman Sachs International [2007] EWCA Civ 811

Industries & General Mortgage Co Ltd v Lewis [1949] 2 All ER 573

Investors Compensation Scheme Ltd v West Bromwich Building Society (No.2) [1999] Lloyd's Rep PN 496

Ivey v Genting Casinos (UK) Ltd t/a Crockford [2017] UKSC 67

Jenkins v Betham (1855)15 CB 189

JP Morgan Chase Bank v Springwell Navigation Company [2008] EWHC 1186 (Comm)

Kelly v Cooper [1993] AC 205

Lenderink-Woods v Zurich Assurance Ltd [2016] EWHC 3287 (Ch)

Lister v Romford Ice and Cold Storage Co [1957] AC 555

London Executive Aviation Ltd v Royal Bank of Scotland Plc [2018] EWHC 74 (Ch)

Lynch v Nurden (1841) 1 QB 36

Lysaght Bros & Co Ltd v Falk (1905) 2 CLR 421

McCrone v Riding [1938] 1 All ER 157

Miller (Appellant) v. Miller (Respondent) and McFarlane (Appellant) v. McFarlane (Respondent) [2006] UKHL 24

Murad v Al-Saraj [2005] EWCA Civ 959

Navaratnam v Secretary of State for the Home Department [2013] EWHC 2383 (QB)

Novoship (UK) Ltd v Mikhaylyuk [2012] EWHC 3586 (Comm)

O'Hare v Coutts & Co [2016] EWHC 2224 (QB)

Paragon Finance plc v DB Thakerar & Co [1999] 1 All ER 400

Parmar v Barclays Bank Plc [2018] EWHC 1027

Perrett v Collins [1998] 2 Lloyd's Rep. 255

Property Alliance Group v Royal Bank of Scotland [2018] EWCA Civ 355

PT Civil Engineering v Davies [2017] EWHC 1651

Quinn v IG Index Limited [2018] EWHC 2478

Quoine Pte Ltd v B2C2 Ltd [2020] SGCA (I) 2 (CA (Sing)

R (BBA) v FSA and others [2011] EWHC 999 (Admin)

R v Bummiss 44 CR 262

R v Parole Board [2005] UKHL 45

Raiffeisen Zentralbank Osterreich AG v Royal Bank of Scotland Plc [2010] EWHC 1392 (Comm)

Redmayne Bentley Stockbrokers v Isaacs [2010] EWHC 1504 (Comm)

Rhodes v Macalister (1923) 29 Com Cas 19

Rich v Pierpoint (1862) 3 F & F 35

Rossetti Marketing Ltd v Diamond Sofa Co Ltd [2013] 1 All ER (Comm) 308

Seager v Copydex Ltd (No.1) [1967] 1 WLR 923

Seymour v Ockwell [2005] EWHC 1137

Shore v Sedgwick Financial Services Ltd [2007] EWHC 2509 (Admin)

Solomon v Barker (1862) 2 F&F 726

Springwell Navigation Corp v JP Morgan Chase Bank (formerly Chase Manhattan Bank) [2010] EWCA Civ 1221

Tesco Stores Ltd v Pook [2003] EWHC 823 (Ch)

Thomas Cheshire & Co v Vaughan Bros & Co [1920] 3 KB 240

Titan Steel Wheels Ltd v Royal Bank of Scotland Plc [2010] EWHC 211 (Comm)

Weavering Macro Fixed Income Fund Ltd (In Liq) v Peterson [2011] 2 CILR 203

Williams Alexander and Stewart Allan Arthur (t/a Alexander & Co) v Wilson, Holgate & Co Ltd (1923) 14 Ll L Rep 431

World Transport Agency Ltd v Royte (England) Ltd [1957] 1 Lloyd's Rep 381

Yasuda Fire & Marine Insurance v Orion Marine Insurance Underwriting Agency Ltd [1995] QB 174

Zaki v Credit Suisse [2011] EWHC 2422

Table of Legislation

EU legislation

Council Directive 93/22/EEC of 10 May 1993 on investment services in the securities field

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

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

Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014

Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014

Directive (EU) 2017/828 of the European Parliament and of the Council of 17 May 2017 amending Directive 2007/36/EC as regards the encouragement of long-term shareholder engagement

United Kingdom

Primary legislation

Misrepresentation Act 1967

Civil Evidence Act 1972

Unfair Contract Terms Act 1977

Sale of Goods Act 1979

Supply of Goods and Services Act 1982

Financial Services Act 1986

Bank of England Act 1998

Financial Services and Markets Act 2000

Companies Act 2006

Financial Services Act 2012

Financial Services (Banking Reform) Act 2013

Consumer Rights Act 2015

Bank of England and Financial Services Act 2016

The Compensation (London Capital & Finance plc and Fraud Compensation Fund) Act 2021

Secondary legislation

Unfair Terms in Consumer Contracts Regulations 1999

Financial Services and Markets Act (Regulated Activities) Order 2001

Financial Services and Markets Act (Financial Promotion) Order 2005

Consumer Protection from Unfair Trading Regulations 2008

The Financial Services Act 2012 (Misleading Statements and Impressions) Order 2013

Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019

INTRODUCTION

There has undoubtedly developed over the years a great wealth of legal, regulatory and ethical standards which apply to the financial services industry in the UK. These standards have been established and developed through the English common law, legislation, the financial regulators' rules, and a multitude of industry voluntary codes of conduct and ethics. It may seem natural to inquire as to the impact, if any, they have had in respect of the global financial crisis and financial scandals in the UK, the effects of which we continue to suffer today. Moreover, what impact might they have in future financial crises or scandals. Secondly, if the financial services industry is undergoing significant digital transformation, how appropriate are our standards in the light of potential risks that a modern digitalised financial system will pose upon society. For example, the stability and resilience of the financial system may be debilitated by IT contagion due to outsourcing and overreliance upon shadow infrastructure such as distributed ledger technology (DLT), cloud computing and data analytics. AI or machine learning may make unpredictable decisions, and may be biased where underlying data is skewed causing harm to consumers. In addition, virtual, digital and crypto-currencies which are complex, volatile, prone to fraudulent activity and potentially high-risk investments, may cause financial harm for consumers. AI also presents unprecedented challenges to our established legal principles, such as agency, liability, reasonableness and causation. In particular, it will likely create responsibility gaps, which may not be bridged by traditional concepts of liability.

The UK response to the global financial crisis and various scandals, which came to light as a result, was successful in diagnosing and addressing many of the deficiencies in the UK financial system, by introducing measures relating to depositor protection, ring-fencing, capital adequacy and loss-absorbency measures, special resolution regimes, and increased individual responsibility. However, this thesis will argue that it was inadequate because it was concerned only with correcting market imperfections and failures. It didn't properly consider the ethical flaws in our approach to regulating the financial system. In respect of conduct failures, while the regulatory authorities responded with heavy fines and consumer redress programmes, they failed to address the underlying causes for such conduct failures. For example, they failed to consider duties, rights and justice, dignity and the social purpose of the financial system. This thesis will argue that we should rediscover the ethical purpose of finance, and re-establish ethics as one of the optimisation conditions of the market economy. Moreover, we should adopt an integrated ethical framework to financial regulation, which balances duty-based ethics, virtue ethics and

utilitarianism, to improve the ability of the legal and regulatory standards to guide ethical conduct in financial services and provide for a flourishing financial system.

This thesis will subsequently carry out a review of the ethical principles '*integrity*', '*loyalty*', '*prudence*', '*skill*, *care* and *diligence*', '*fairness*' and '*transparency*' which underpin the regulatory and legal standards in banking and finance. It will be recognised that, in addition to these ethical principles, financial firms are also bound by the conflicting norms of our free-market capitalist economy to maximise profits, and to conduct business on *caveat emptor* terms. Moreover, this thesis will explain how empirical accounts reveal that firms have sought to maximise profitability for shareholders at the expense of treating customers *fairly*. In addition, it will explain how the principle of *caveat emptor* has permeated the financial services statutory framework. This thesis will argue that the conflict between our ethical standards and the norms of our free-market capitalist economy has resulted from the dislocation of ethics from economics and finance.

This thesis will carry out a detailed analysis of the ethical principles – '*integrity*', '*loyalty*', '*prudence*', '*skill*, *care* and *diligence*', '*fairness*' and '*transparency*' to assess their efficacy to practically guide ethical conduct. This thesis will argue that because the term '*integrity*' is used in such divergent ways, its value in guiding everyday ethical conduct may be more limited than is generally supposed. Moreover, given its complexity, it should be removed from our regulatory standards as a substantive virtue, and the simpler terms '*honesty*' and '*trustworthiness*' should be espoused in its place. Meanwhile, it will be argued that the logic that '*fairness*' cannot be justified or refuted by any objective process of logical reasoning is invalid. While social and moral values are changeable across generations and cultures, it does not follow that there can be no objective view of '*fairness*'. Primarily, this thesis will suggest that we should seek to establish and apply '*fairness*' through *a priori* judgement, which is inherent in reason, and revealed through its operation. Moreover, applying '*fairness*' as an ethical standard through *a posteriori* judgement is inappropriate for the purposes of identifying what we *ought* to do as unconditional requirements. Secondly, we should seek to locate '*fairness*' within the context of pursuing a broader social cooperative purpose between business and society. This thesis will further argue that '*sustainability*' and '*stewardship*', should also be included in our ethical standards. For example, in Kant's philosophy, '*prudence*' is a hypothetical imperative, which is not commanded *per se*, but rather a means to another moral purpose, i.e. dealing justly with other persons, treating customers fairly or long-term sustainability. In virtue ethics '*prudence*' emphasises openness and careful deliberation, before any hasty judgement or decisions are made. Moreover, '*prudence*' calls for showing humility in making short-term and long-term decisions, and being conscious of one's limitations, and of its potential impact upon other humans and society. Similarly,

'*stewardship*' refers to responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable benefits for clients, the financial system, the economy, the environment and society. Meanwhile, '*sustainability*' seeks to fairly distribute benefits and burdens among stakeholders, such as customers, shareholders, employees, suppliers, competitors, wider society and the natural environment. The advantage of this broad conception of '*sustainability*' is that it provides a general framework within which those pursuing a set of potentially conflicting interests can meet and identify a shared or common purpose. Finally, this thesis will argue that we should include '*justice' and 'legitimacy'* in our ethical standards. The concept of justice includes *distributing benefits and burdens* fairly among people, justly *imposing penalties* on those who do wrong, and justly *compensating* persons for their losses when others have wronged them. Moreover, it will be suggested that we seek a *systemic*, *structural* and *prophylactic* concept of justice, which is anchored in human dignity. Meanwhile, we should aim to establish, or re-establish legitimacy of financial markets and financial institutions for our society.

This thesis will recognise that there are appreciably few legal and regulatory standards specific to AI. Meanwhile, the past five years have witnessed a proliferation in the number of ethical values, principles, codes and guidelines for AI, both domestically and globally. It will argue that while agreement on high-level principles is an important stage in ensuring that AI is developed and used for the benefit of society, ethical principles are not sufficient in themselves to ensure that society reaps the benefits and mitigates the risks of AI. To have any practical utility, principles will need to be action-guiding, and assist society to navigate the competing demands and considerations of real-life situations. Moreover, principles will need to be accompanied by an account of how they apply in given situations, and how to balance them when they conflict, or when there are tensions. However, this thesis will argue that there is a more fundamental challenge. Through the development of high-level principles, we are seeking to identify the overall harms and benefits of a course of action upon society. However, this utilitarian approach is agent neutral. It doesn't address issues of agency, which represent some of the most profound ethical questions for AI. It isn't concerned with *who* brings about a particular result, provided the most benefit possible is produced. Indeed, some of the fundamental questions of AI ethics relate to human agency. This thesis will therefore recommend that we implement aspects of moral decision-making in AI systems to ensure that their choices and actions do not cause harm. Moreover, that we design machines to behave ethically by building moral rules and principles, using an integrated ethical framework, combining top-down, bottom-up and non-rational morality, which correspond with the traditional ethical theories of deontology, utilitarianism and virtue ethics. A top-down approach represents the desire of communities to maintain general instructions for determining which types of actions are acceptable and not acceptable. It also

reinforces cooperation, and the mutual acceptance that moral behaviour requires limiting one's freedom of action for the common good. In relation to artificial moral agents, this would involve programming ethical principles and rules, which once articulated and programmed, would make the act of being ethical simply a matter of observing the rules. Secondly, a bottom-up developmental approach emphasises the cultivation of implicit values of the agent. This approach pre-supposes that humans are not competent moral agents by birth, and that our morality is dynamic. Furthermore, our individual morality is determined by a combination of factors, including genetics, environment, education and learning over a period of time. Thirdly, we might merge a top-down and bottom-up approach, and develop a hybrid moral machine. In this approach, top-down and bottom-up aspects work together by adopting a connectionist network to develop a computer system with good character traits or virtues. However, once we have settled on an integrated machine ethical approach, the next stage is to ensure that this approach is made specific and sufficiently clear to be programmed into an AI system. This will involve significant cooperation between ethicists, lawyers, AI researchers and engineers.

This thesis will argue that while AI systems may make moral decisions, they cannot entirely replace humans. Indeed, to be considered morally responsible, the artificial agent must be connected to its actions more profoundly, by wanting to act in a certain way, and being epistemically aware of its behaviour. Given that the self-reflective and deliberative attributes and capabilities of humans do not exist in AI systems, human agency is still required for designing and ultimately taking responsibility for their actions. The corollary of this is that decisions made by the artificial agent must always be subject to human control. Therefore, AI systems and machines should only facilitate and complement human decisions. Moreover, AI systems which serve moral purposes, both as autonomous and semi-autonomous moral agents will exhibit only a simulacrum of ethical deliberation, or a replica of human morality, with all its imperfection. Therefore, we will need to mitigate the risk that 'artificial morality' may be tainted with the conscious and unconscious biases of the engineers who program the machines. This thesis will recommend that AI ethical standards are bifurcated to apply to the human *creators* of the AI, i.e. the designers, builders, programmers and users, and the AI which is *created*. The standards for humans involve telling humans what *they* should or should not do. Meanwhile, the standards for AI tell the AI what *it* should do. This division of standards for humans and for AI may be helpful for contemplating that while we may have rules and standards for ethical AI, there should always be human agency for designing, and ultimately taking responsibility for AI. The instrumental purpose of AI is represented by the rules for AI, while ensuring that we meet the ultimate purpose of AI will always be the responsibility of humans.

This thesis will also highlight that AI presents unprecedented challenges to our established legal principles, such as agency, liability, reasonableness and causation. In particular, it will likely create responsibility gaps, which may not be bridged by traditional concepts of liability. Meanwhile, whether right or wrong, this thesis will argue that humans have a common psychological need to blame the sources of harm. The increasing prevalence of AI systems is coupled with a growing urgency to address the question of who, if anyone, can be held responsible for the harms resulting from AI. However, the question should not be simply *who* can be responsible, but *how* we can coherently locate responsibility when the source of harm is an autonomous AI system. Traditional mechanisms for assigning responsibility include strict liability and non-delegable duties. Strict liability refers to the rule that a defendant may be liable in the absence of fault or negligence. Meanwhile, non-delegable duties refer to the nuanced position where a party who has primary responsibility may be held to have accepted a duty to ensure that all relevant arrangements are carried out in a non-negligent way, irrespective of whether that party chooses to carry out the arrangements itself or arrange for a third party to do so. Given the increased complexity of AI systems, it may be less appropriate to assign responsibility to a single party, whether it is the user, the manufacturer or the designer, and consider a rich pluralistic approach to responsibility. By adopting this approach, we may, as a procedural matter, locate non-natural responsibility in artificial moral agents, but also require that the associates of an AI system, i.e. its programmers or users, take responsibility, even where those individuals could not have controlled or foreseen the machine's behaviour. While, on occasion, our allocation of responsibility may seem inappropriate, this is because we naturally maintain a direct conceptual link between agency and responsibility, which, in light of developments in AI, may not be necessary. An alternative solution may be to provide a ‘collective responsibility’ mechanism which assigns ‘distributed moral responsibility’ in distributed environments, such as a network of agents, some of which are human and some of which are artificial, which may cause ‘distributed moral actions’. This strategy allocates responsibility for a whole causally relevant network to each agent, irrespective of the degrees of intentionality, informedness and risk aversion of such agents, i.e. faultless responsibility. This would involve a shift in perspective from an agent-oriented ethics, which is concerned about the individual, to a patient-oriented ethics, which is concerned about the affected system’s well-being and ultimate flourishing. Indeed, seeking to find an existing legal person responsible for all AI actions might be at the expense of the integrity of the legal system as a whole.

Finally, this thesis will seek to progress the debate from ethical frameworks to the design of new legal and regulatory frameworks by making a number of recommendations for reform. In particular, it will recommend that a new ‘social purpose’ statutory objective is introduced in the FSMA 2000. This ‘social purpose’ objective will recognise financial self-interest and the

importance of financial returns, however it will also acknowledge mutuality of purpose, between the strategies of financial institutions and the prosperity of the communities that they serve. Moreover, it will reinstate social purpose and social justice as the ultimate ends of the financial markets. Secondly, this thesis will recommend that a new regulatory principle is introduced in the FSMA 2000 requiring the FCA and the PRA, when discharging their general functions, to have regard to firms serving society, including medium to long-term growth of the real economy, supporting SMEs, and addressing environmental and sustainability considerations. Thirdly, this thesis will propose a number of further amendments to the FSMA 2000 requiring regulated firms to articulate and demonstrate their social purpose, and to refrain from pursuing purposes and activities that could be detrimental to their social purpose. Fourthly, this thesis will recommend a number of additions to the regulators' handbooks. In particular, the incorporation of new ethics sourcebooks for consumers, firms and the regulators. Primarily, these resources will explain the fundamental components of ethics, including key concepts, and the importance of an integrated ethical approach for regulating the relationship between conduct, character, and consequences. Secondly, the ethics sourcebooks will encourage firms to treat the FCA Principles and PRA Fundamental Rules, as '*a priori*' ethical principles. However, they will also explain the difference between '*universal*' or '*perfect*' duties, and '*non-universal*' or '*imperfect*' duties. For example, the duty to act with loyalty is a non-universal or imperfect duty. Therefore, we may construct a rule rejecting the maxim of refusing to be '*loyal*' or to protect the interests of customers, but not the adoption of a maxim of being loyal to *all* customers, which would fail on the grounds of impossibility. Indeed, firms may have a fundamental obligation to be *loyal* to the interests of their customers, however what it will take to discharge this fundamental obligation will differ depending upon the needs of customers. Thirdly, the ethics sourcebooks will provide elucidation of the substantive meaning and interpretation of the ethical principles, which underpin the regulatory and legal standards in banking and finance. Fourthly, the ethics sourcebooks will distinguish ethical standards which apply to humans, i.e. the designers, builders, programmers, and the users of AI, and ethical standards which apply to AI systems. Finally, this thesis will recommend changes to the regulators' handbooks to address issues of liability relating to AI systems.

METHODOLOGY OF THE RESEARCH

The methodology of this research focuses mostly on academic opinion in the fields of ethics or moral philosophy, economics, financial regulation and law. It also focuses on the analysis of primary sources such as UK legislation, financial regulators' published rules, and English common law; and secondary sources including governmental and financial regulators' consultation and policy papers, and Parliamentary reports. The approach of this research is

theoretical. The first part (Chapter 1 *The financial regulatory system in the UK* and Chapter 2 *Ethics*) provides a rigorous analysis of the traditional ethical theories – deontology, justice theories, virtue ethics and consequentialism, focusing predominantly upon the classical, rather than contemporary, proponents of such theories. It considers the extent to which our economic and finance theory is informed by ethics, and recommends that we adopt an integrated ethical approach based upon Kaptein and Wempe's 'Corporate Integrity Model', which promotes the simultaneous and balanced use of three ethical theories. The second part (Chapter 3 *Standards in Banking and Finance*) analyses the legal and regulatory standards in banking and finance in the UK. It distils the fundamental ethical principles from those standards and critically assesses the efficacy of those standards. The third part (Chapter 4 *Standards in General AI*) analyses the global landscape of legal and regulatory standards in AI, and the global convergence of abstract ethical standards for AI. Secondly, it considers the various ethical frameworks for AI systems, and proposes an integrated machine ethics approach. Finally, it considers deeper ethical and legal issues concerning autonomy, agency, liability, reasonableness and causation which provide the basis for recommendations for reform to the legal, regulatory and ethical standards in general AI. The original contribution of this research is the design of an ethical regulatory framework for the provision of traditional and AI or machine learning based financial services, and reform of the legal and statutory governance framework and regulators' rulebooks.

The thesis refers broadly to an ethical proposal for a flourishing digitalised financial system. However, it will not examine all aspects of digitalisation. The thesis will consider an ethical regulatory framework for the provision of traditional and AI or machine learning based financial services. Conversely, it will not examine issues specific to decentralised, distributed and public digital ledgers, including blockchain and smart contracts, central bank digital currencies and cryptocurrencies, critical financial infrastructures, including cloud service providers, open banking ecosystems and payments, privacy and data protection, and cybersecurity. Furthermore, the thesis will not examine regulatory technologies, or so-called Regtech, which seek to facilitate the delivery of firms' regulatory requirements and provide advanced supervisory analytics or data. Meanwhile it is acknowledged that the recommendations will have wider implications for the financial regulators. Secondly, as discussed above, the thesis will examine the global landscape of AI ethics guidelines, which include those from the European Commission and other international organisations. However, the thesis will not examine issues arising from the UK's formal withdrawal from the European Union (EU) on 31 January 2020. Thirdly, while it is acknowledged that regulatory standard-setting involves decisions about both the substance and the form of standards, the focus of the thesis is upon the substance of standards. Therefore, the choice of form falls outside the scope of this research. Finally, the proposed integrated ethical framework is primarily concerned with the substance of standards, rather than methods of

regulation. Therefore, it is distinguishable from Ayres and Braithwaite's theory of responsive regulation, and other New Governance regulatory approaches. However, it is suggested that it may provide a teleological criterion for New Governance regulatory methods.

STRUCTURE OF THE THESIS

This thesis is divided into five chapters. Chapter 1 *The financial regulatory system in the UK* begins by providing a summary of the UK's financial services regulatory architecture. It explains how the various UK institutions sought to ameliorate the impact of the global financial crisis and financial scandals upon the UK financial system through various legislative reforms. It also highlights the ethical deficiencies in our rationale and objectives of regulation. Chapter 2 *Ethics* introduces ethics as an academic discipline. It discusses the traditional theories of normative ethics – deontology, utilitarianism, justice theories and virtue ethics, which are designed to assist us in choosing the good, or the right, in respect of course of action, character and consequences, and solve modern social problems. It also observes the phenomenon of the separation of ethics as an academic discipline from economic theory, the general equilibrium theory and modern finance theory and proposes that we apply an integrated ethical approach to standards in financial regulation. This integrated ethical approach is based upon Kaptein and Wempe's 'Corporate Integrity Model'. Chapter 3 *Standards in Banking and Finance* provides an overview of the legal and regulatory standards for financial services. It distils fundamental ethical principles from those standards, critically assess those principles to determine their efficacy in guiding ethical conduct, and makes proposals for new and improved ethical standards. Chapter 4 *Standards in General AI* provides an overview of the legal, regulatory and ethical standards for general AI. It critically analyses the global convergence of applied ethical AI standards, and considers the sufficiency of those standards for the purposes of developing and governing ethical AI. It recommends that we implement moral decision-making in AI systems to ensure that their choices and actions do not cause harm. Moreover, that we design machines to behave ethically by building moral rules and principles, using an integrated ethical framework. However, it recognises that while AI systems may make moral decisions, they cannot entirely replace humans. Therefore, AI ethical standards should be bifurcated to apply to the human *creators* and *users* of the AI, and the *created* AI. Chapter 5 *Recommendations* will provide a summary of the principal conclusions of the previous chapters, and make a series of proposals for reform of the current legal and regulatory framework for financial regulation in the UK.

The thesis states the law and major legal and policy developments as at 22nd September 2022.

CHAPTER ONE

THE FINANCIAL REGULATORY SYSTEM IN THE UK

1. FINANCIAL REGULATION IN THE UK

1.1. The financial services regulatory architecture

The Financial Services and Markets Act 2000[1] (FSMA 2000) provides the overarching statutory framework for the functioning of the regulators, the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA).[2] In particular, the FCA and PRA have a full range of delegated legislative powers and duties for the purpose of regulating the financial services industry in the UK.[3] Primarily, it establishes a licensing regime through which financial institutions apply to the FCA or the PRA for authorisation to carry on one or more regulated activities in the UK.[4] The FCA is responsible for the conduct of authorised firms authorised under the FSMA 2000.[5] The PRA, which is the Bank of England (BoE), is the UK regulator responsible for the micro-prudential regulation of banks, building societies, insurers and certain systemically important investment firms that have been designated by the PRA.[6] The Financial Policy Committee (FPC), which is a committee of the BoE, is responsible for macro-prudential

[1] The Financial Services Act 2012, which amended the FSMA 2000, overhauled the UK architecture for financial regulation by creating the FCA and the PRA.

[2] The FSMA regulatory model delegates the setting of regulatory standards to expert, independent regulators that work within an overall policy framework set by government and Parliament <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/927316/141020_Final_Phase_II_Condoc_For_Publication_for_print.pdf> accessed 21 September 2022.

[3] FSMA 2000, Part 9A *Rules and Guidance* confers on both the FCA and the PRA extensive delegated legislative powers, to make rules and issue requirements as to the financial standing and conduct of authorised persons.

[4] FSMA 2000 Part 4A *Permission to carry on regulated activities*.

[5] However, the FCA is also the prudential regulator for FCA regulated firms, i.e. firms which are not regulated by the PRA.

[6] The PRA was established in 2013 as a subsidiary of the Bank of England, however it was 'de-subsidiarised' by the Bank of England and Financial Services Act 2016. The BoE's functions as the PRA are exercised by the BoE acting through its Prudential Regulation Committee (PRC).

regulation. The FPC applies the macro-prudential tools[7] through powers of direction over the PRA and the FCA.[8]

1.1.1. Financial Conduct Authority

The FCA is the UK's conduct regulator for about 51,000 financial services firms and financial markets in the UK, and the prudential supervisor for 49,000 firms. The FCA's statutory objectives include the FCA's strategic objective of ensuring that the relevant markets function well, and its operational objectives: (i) the consumer protection objective; (ii) the integrity objective; and (iii) the competition objective. The FCA is required to have regard to a number of regulatory principles[9], while fulfilling its general functions, including the need to use resources in the most efficient and economic way, the general principle that consumers should take responsibility for their decisions, the responsibilities of senior management, including those affecting consumers; and that the regulators should exercise their functions as transparently as possible. The FCA Handbook which consists of rules and guidance, sets out the standards expected of firms and individuals. The FCA Handbook begins with a block of High Level Standards which articulate how the FCA will ensure that its strategic and operational objectives are met by the firms and individuals it supervises.[10]

The FCA's objectives

Consumer protection objective

The FCA's consumer protection objective, which is set out in section 1C(1) FSMA 2000, is focused on 'securing an appropriate degree of protection for consumers'. When deciding the level of protection which is appropriate for consumers in a given context, the FCA is required to have regard to (a) the differing degrees of risk involved in different kinds of investment or other transaction; (b) the differing degrees of experience and expertise that different consumers may have;

---

[7] The tools currently available to the FPC relate to directing firms' capital requirements in response to threats to financial stability and localised risks in specific sectors; the setting of maximum ratios of total unweighted liabilities to capital; and directing owner-occupied mortgage markets on to loan-to-value ratios and debt-to-income ratios.

[8] This power of direction is set out in Bank of England Act 1998, s 9H *Directions to FCA or PRA requiring macro-prudential measures*.

[9] The regulatory principles are set out in FSMA 2000, s 3B *Regulatory principles to be applied by both regulators*.

[10] These High Level Standards are explored further in Chapter 3 *Standards in Banking and Finance*.

(c) the needs that consumers may have for the timely provision of information and advice that is accurate and fit for purpose; (d) the general principle that consumers should take responsibility for their decisions; (e) the general principle that those providing regulated financial services should be expected to provide consumers with a level of care that is appropriate having regard to the degree of risk involved in relation to the investment or other transaction and the capabilities of the consumers in question; (f) the differing expectations that consumers may have in relation to different kinds of investment and other transaction; (g) any information which the consumer financial education body has provided to the FCA in the exercise of the consumer financial education function; and (h) any information which the scheme operator of the ombudsman scheme has provided to the FCA.[11] In their Business Plan 2021-2022[12], the FCA explained that they intended to continue their core consumer priorities, which include enabling consumers to make effective investment decisions, ensuring that consumer credit markets work well, making payments safe and accessible, and delivering fair value in a digital age.[13]

Integrity objective

The FCA's integrity objective, set out in section 1D(1) FSMA 2000, means 'protecting and enhancing the integrity of the UK financial system'. The 'UK financial system' means the financial system operating in the UK and includes financial markets and exchanges, regulated activities, and other activities connected with financial markets and exchanges.[14] The 'integrity' of the UK financial system includes: (a) its soundness, stability and resilience; (b) its not being used for a purpose connected with financial crime; (c) its not being affected by behaviour that amounts to market abuse;[15] (d) the orderly operation of the financial markets; and (e) the transparency of the price formation process in those markets.[16] Therefore, 'integrity' relates both to physical soundness, and moral soundness of the UK financial system, in relation to the absence of financial crime. The FCA may advance this operational objective by exercising its powers to make rules banning the short-selling of a financial instrument for the purposes of addressing a threat to the stability of the UK financial system; by making rules to address risks of money

[11] This is pursuant to FSMA 2000, s 232A *Scheme operator's duty to provide information to FCA*.

[12] FCA Business Plan 2021/22 <https://www.fca.org.uk/publication/business-plans/business-plan-2021-22.pdf> accessed 21 September 2022.

[13] <https://www.fca.org.uk/publication/business-plans/business-plan-2021-22.pdf> accessed 21 September 2022.

[14] FSMA 2000, s 1I *Meaning of "the UK financial system"*.

[15] i.e. breaches of Article 14 *Prohibition of insider dealing and of unlawful disclosure of inside information* or Article 15 *Prohibition of market manipulation* of the UK's retained version of Regulation (EU) No 596/2014 on market abuse (the UK Market Abuse Regulation).

[16] FSMA 2000, s 1D(2) *The integrity objective*.

laundering or the use of the financial system to fund terrorist activity, and disclosure rules under Part 6 of FSMA 2000, imposing requirements on listed issuers of financial instruments as to the information that must be disclosed to the market.[17]

Competition objective

The FCA's competition objective is set out in section 1E(1) FSMA 2000 which means 'promoting effective competition in the interests of consumers and the markets' for both regulated financial services or services provided by a recognised investment exchange. The FCA, in considering the effectiveness of competition in a particular market, may have regard to a non-exhaustive list of factors including the needs of different consumers who use or may use those services, including their need for information that enables them to make informed choices; the ease with which consumers who may wish to use those services, including consumers in areas affected by social or economic deprivation, can access them; the ease with which consumers who obtain those services can change the person from whom they obtain them; the ease with which new entrants can enter the market; and how far competition is encouraging innovation.[18] In addition to its competition objective, the FCA is required to discharge its general functions in a way that promotes competition in the interests of consumers, so far as is compatible with acting in a way that advances the consumer protection objective and the integrity objective.[19]

1.1.2. Prudential Regulation Authority

The PRA's objectives

The PRA is the UK's prudential regulator of approximately 1,500 banks, building societies, credit unions, insurers and major investment firms. As a prudential regulator, it has a general objective to promote the safety and soundness of the firms it regulates.[20] The PRA has an insurance objective, which applies in relation to insurance or insurers. The PRA's insurance objective is 'contributing to the securing of an appropriate degree of protection for those who are or who may become policyholders'[21] and a secondary competition objective, requiring it to act in a way which

---

[17] These examples are provided in the Explanatory Notes to the Financial Services Act 2012.

[18] HM Treasury may by order amend the scope of the competition objective pursuant to FSMA 2000, s 1J *Power to amend objectives*.

[19] FSMA 2000, s 1B(4) *The FCA's general duties*.

[20] FSMA 2000, s 2B(2) *The PRA's general objective*.

[21] FSMA 2000, s 2C(1) *Insurance objective*.

facilitates effective competition in the markets for services provided by PRA-authorised firms.[22] When discharging its general functions, the PRA must act in a way that, as far as reasonably possible, advances its general objective and, where applicable, its insurance objective and any additional objectives.[23]

1.1.3. HM Treasury and Parliament

One of the essential characteristics of the UK financial regulatory framework is the regulators' independence from political interference.[24] HM Treasury and Parliament have a very restricted role in determining how the regulators operate. They are unable to intervene directly in how the regulators exercise their functions, except in very limited circumstances.[25] Notwithstanding, HM Treasury has the power to make recommendations about aspects of the government's economic policy that the regulators should have regard to when advancing their objectives.[26] In addition, HM Treasury may appoint and remove the Chair and most of the Board members of the FCA, which may have a modicum of influence over the general policy of the FCA.[27] Furthermore, the Chancellor of the Exchequer may appoint and remove most of the Prudential Regulation Committee, acting as the PRA.[28] In terms of the future relationship between the financial regulators, the government and Parliament, HM Treasury has made a number of proposals which seek to provide a distinct and coherent allocation of regulatory responsibilities which also builds upon the FSMA regulatory model.[29] For example, it has been proposed that the government and Parliament should set the policy framework for financial services and the strategy for financial services policy. The regulators would work within this framework and design and implement the

---

[22] FSMA 2000, s 2H(1) *Secondary competition objective and duty to have regard to regulatory principles*.

[23] FSMA 2000, s 2D(3) *Power to provide for additional objectives*.

[24] Treasury Committee, *The Future Framework for Regulation of Financial Services* (HC 2021-22, 147) <https://committees.parliament.uk/committee/158/treasury-committee/news/156315/treasury-committee-reports-on-future-regulatory-framework-of-financial-services/> accessed 21 September 2022.

[25] For example, FSMA 2000 , s 137I *Remuneration policies: Treasury direction to consider compliance* provides that HM Treasury may direct the regulators to consider if remuneration policies (of firms they specify) comply with remuneration policy rules made under s 137I; FSMA 2000 , s 410(1) *International obligations* provides that HM Treasury may direct regulators not to act in breach of or to comply with EU or other international obligations; and FSMA 2000, sch 1ZA para 14 and sch 1ZB para.22 provide that HM Treasury may direct the regulators as to audited accounts.

[26] These powers were conferred on HM Treasury by the Bank of England and Financial Services Act 2016. They were inserted into FSMA 2000, s 1JA in respect of the FCA, and the Bank of England Act 1998, s 30B in respect of the PRA.

[27] FSMA 2000, sch 1ZA *The Financial Conduct Authority*, paras 2-4.

[28] Bank of England Act 1998, s 30A *Prudential Regulation Committee*.

[29] The Future Regulatory Framework Review <https://www.gov.uk/government/consultations/future-regulatory-framework-frf-review-proposals-for-reform> accessed 21 September 2022.

regulatory requirements that apply to firms, using their proficiency and rule-making powers to ensure regulation is designed appropriately, and is current with market developments. Finally, enhanced public scrutiny and engagement arrangements have been proposed to help ensure that the regulators are accountable for their actions, and that stakeholders are fully engaged in the policy-making process.[30]

2. RESPONSE TO THE FINANCIAL CRISES AND SCANDALS IN THE UK

2.1. Banking & financial crises

2.1.1. The Global Financial Crisis

The causes of the global financial crisis are still being debated today. The conventional narrative attributes the crisis to a destabilising accumulation of leverage or cheap debt in the financial system[31], and to a destructive search for profit which, together with burgeoning financial innovation by financial intermediaries, led to the development of financial products, including securitisation products, which transferred leverage or debt into the financial markets.[32] The financial markets, which were undermined by a number of weaknesses, including the interconnectedness of counterparties across the financial system, were unable to manage the accumulation of contagion risk effectively.[33] Meanwhile, banks suffered initially with liquidity, and subsequently solvency crises as they struggled to meet their funding requirements, which catastrophically undermined financial stability.[34] Criticisms were levelled at financial system innovations, which were deemed socially useless. This reflected strong concerns about the high levels of financial intermediation and uncertainty as to the purpose of the financial system, particularly in light of the welfare costs which the global financial crisis had amassed. However, this concern plainly contrasted with the optimism which preceded the global financial crisis regarding the high levels of financial intermediation.[35] The deteriorating economic outlook, heightened systemic risk, the collapse of financial markets and an erosion of confidence triggered

[30] n 2 above.

[31] Hyman P Minsky, 'The Financial Instability Hypothesis: An Interpretation of Keynes and an Alternative to 'Standard' Theory' (1977) 16 Nebraska Journal of Economics and Business 5 <http://www.jstor.org/stable/40472569> accessed 21 September 2022.

[32] Niamh Moloney, 'Introduction' in Niamh Moloney, Eilis Ferran and Jennifer Payne (eds), *The Oxford Handbook of Financial Regulation* (OUP 2015).

[33] n 32 above.

[34] n 32 above.

[35] n 32 above.

a run on deposit withdrawals, as institutional and individual investors moved swiftly to liquefy their holdings.[36] Given the radical fall in liquidity, some have argued that the global financial crisis was a primary catalyst in exposing the single largest episode of finance crime and financial fraud in generations.[37]

2.1.2. The UK's regulatory response

The global financial crisis exposed serious deficiencies in the UK's regulatory system, particularly in the allocation and co-ordination of responsibilities across HM Treasury, the BoE and the FCA's predecessor, the Financial Services Authority (FSA). In retrospect, the BoE had insufficient tools to deliver on its financial stability objective. The FSA's responsibilities were spread too widely, and as a result, they neglected to concentrate on the stability of firms. In addition, there was no allocation of responsibility for monitoring the fundamental relationship between the stability of individual firms and the stability of the whole financial system. The post global financial crisis reforms were therefore concerned primarily with institutional design and allocation of responsibilities. The FSA was abolished and new institutional arrangements were established. The FPC was instituted within the BoE which would have responsibility for 'macroprudential' regulation, or the stability of the whole financial system. The PRA was created as the prudential regulator of banks, insurers and the larger, more complex investment firms. The FCA was established which would focus upon conduct of business regulation, but also the prudential regulation of firms not regulated by the PRA. The Payment Systems Regulator (PSR) was created as the economic regulator of the payment systems industry in the UK. Finally, the FSMA 2000 was amended to enable improved coordination across HM Treasury and the financial regulators.[38]

2.1.2.1. Summary of formal responses

Turner Review

There have been over 20 formal responses to the global financial crisis commissioned by HM Treasury, the FSA, the BoE and Parliament. In March 2009, the FSA published the 'Turner Review, A regulatory response to the global banking crisis' together with an associated

[36] Sandra S Benson, 'Recognizing the Red Flags of a Ponzi Scheme' (2009) 79(6) The CPA Journal 19.

[37] Jacqueline M. Drew, 'Who Was Swimming Naked When the Tide Went Out? Introducing Criminology to the Finance Curriculum' (2012) 9 Journal of Business Ethics Education 63.

[38] n 2 above.

Discussion Paper.[39] Adair Turner, the Chairman of the FSA was asked by the Chancellor of the Exchequer in October 2008 to review the causes of the financial crisis, and to make recommendations for reform of the regulation and supervisory approach in order to create a more robust banking system. Lord Turner concluded that the FSA failed to prevent the crisis because it was overly focused on regulating conduct of business at the expense of carrying out prudential regulation. In addition, prudential regulation in the UK disregarded systemic risks. Moreover, the review challenged the intellectual assumptions of financial regulation, in particular, the efficient market theory, and recommended an increased regulatory focus upon ensuring financial stability. While the Turner Review and the Discussion Paper examined the causes of the crisis, and highlighted the deficiencies in regulation and supervision that contributed to it, they also aimed to stimulate debate on potential regulatory policy responses.[40] Given that the impact of the crisis had been felt throughout the interconnected world, it was recognised that the main regulatory issues would be most effectively addressed at a global level.[41]

The Walker Review

In November 2009, the Walker Review was published.[42] Sir David Walker carried out an examination of corporate governance in the UK banking industry in the light of the experience of critical loss and failure throughout the banking system. The review made recommendations on the effectiveness of risk management at board level, including the incentives in remuneration policy to manage risk effectively; the balance of skills, experience and independence required on the boards of UK banking institutions; the effectiveness of board practices and the performance of audit, risk, remuneration and nomination committees; the role of institutional shareholders in engaging effectively with companies and monitoring of boards; whether the UK approach was consistent with international practice; and how national and international best practice could be implemented. The terms of reference were subsequently extended so that the review would also identify where its recommendations applied to other financial institutions. The Walker Review

[39] Financial Services Authority, The Turner Review: A regulatory response to the global banking crisis (March 2009) <https://webarchive.nationalarchives.gov.uk/ukgwa/20091203184338mp_/http://www.fsa.gov.uk/pubs/other/turner_review.pdf> accessed 21 September 2022; Financial Services Authority, A regulatory response to the global banking crisis (DP09/2, 2009) <https://webarchive.nationalarchives.gov.uk/ukgwa/20091203183207mp_/http://www.fsa.gov.uk/pubs/discussion/dp09_02.pdf> accessed 21 September 2022.

[40] n 39 above.

[41] n 39 above.

[42] David Walker, 'A review of corporate governance in UK banks and other financial industry entities, Final recommendations' (2009) <https://webarchive.nationalarchives.gov.uk/ukgwa/+/http:/www.hm-treasury.gov.uk/d/walker_review_261109.pdf> accessed 21 September 2022.

explained that in addition to serious deficiencies in prudential oversight and financial regulation, the period before the crisis was beset by major governance failures within banks. These contributed materially to excessive risk taking and to the breadth and depth of the crisis. Therefore, several recommendations were made, which related to board size, composition and qualification, functioning of the board and evaluation of performance, the role of institutional shareholders; governance of risk, and remuneration.

Treasury Committee reports

The Treasury Committee published a series of reports from January 2008 until March 2010.[43] In January 2008, 'The Run on the Rock' report was published, which analysed the causes and consequences of the run on Northern Rock, and the lessons learned.[44] The Treasury Committee made proposals for legislative changes, and reforms of the Tripartite arrangements. The proposals included establishing a single authority, which would be given new powers for handling failing banks in an orderly manner so that taxpayers and small depositors were insulated from the risks of a bank failure, and responsibility for a newly created Deposit Protection Fund. In addition, the Treasury Committee recommended introducing a special resolution regime (SRR), to enable the efficient administration of a failing bank, combined with arrangements to ensure that insured deposits were safe and accessible.

In March 2008, the Treasury Committee published a report on 'Financial Stability and Transparency'.[45] This examined the causes of the dislocation of international financial markets which came to light in August 2007. In particular, the report highlighted the dramatic growth of markets in asset-backed securities, together with the shift towards a loan origination and distribution banking model, where bank loans were made and then securitised and sold on to investors. The report also explained how the market turbulence since mid-2007 illuminated serious deficiencies in the new financial structure, which included growing product complexity, poor under-writing standards, and increased uncertainty regarding the allocation of risk within the financial system. However, the report highlighted how the search for yield and short–termism

[43] The Treasury Committee is appointed by the House of Commons to examine the expenditure, administration and policy of HM Treasury, HM Revenue & Customs, and associated public bodies, including the BoE and the FCA <https://committees.parliament.uk/committee/158/treasury-committee/role/> accessed 21 September 2022.

[44] The period from Friday 14 September 2007 to Monday 17 September 2007 saw the first run on the retail deposits of a United Kingdom bank since Victorian times. Treasury Committee, *The run on the Rock* (HC 2007–08, 56–I) <https://publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/56/56i.pdf> accessed 21 September 2022.

[45] Treasury Committee, *Financial Stability and Transparency* (HC 2007–08, 371) <https://publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/371/371.pdf> accessed 21 September 2022.

encouraged many investors to invest in high–yielding and complex financial products which they did not fully understand, or adequately consider the associated risks. Moreover, many investors did not carry out appropriate due diligence on the financial products they invested in and relied heavily on the credit rating agencies. The report recommended that while investors had to take responsibility for their investment decisions, credit rating agencies needed also to resolve the inherent and multiple conflicts of interest in their business model, and the deficiencies in their rating methods to regain the trust and confidence of the financial markets, and the public at large.

In September 2008, the Treasury Committee published a report on 'Banking Reform'.[46] The report highlighted the need for further legislative and practical reform in the area of financial stability. It proposed that new legislation should provide for greater clarity about the nature and objectives of 'heightened supervision'[47], the stage which preceded the proposed SRR, statutory powers for the BoE relating to the initiation and the operation of SRR, and a clear institutional separation between the executive functions of the BoE relating to financial stability. The report also recommended that in parallel to the creation of the new legislative framework, the FSA should continue to strengthen its capacity to regulate to reduce the need for the SRR; that the Tripartite authorities should develop an effective external communications strategy to help to secure public and market confidence in the exercise of their new powers; and that depositor protection arrangements should be developed in the event of a bank failure.

In April 2009, a report on 'Banking Crisis: The Impact of the failure of the Icelandic banks' was published.[48] The report acknowledged the potentially severe consequences which the failure of certain Icelandic banks had in October 2008 for various depositors, including local authorities, charities, and UK citizens.[49] It considered the circumstances that led to the failure of these banks, the actions taken by the UK government to safeguard British citizens' savings, and those whose funds had not been safeguarded. The report confirmed the overarching principle that the UK government could not provide cover for deposits held by British citizens in jurisdictions outside the control of the UK. However, it recommended that the UK authorities work with the Isle of Man and Guernsey authorities to resolve those issues.

---

[46] Treasury Committee, *Banking Reform* (HC 2007–08, 1008) <https://publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/1008/1008.pdf> accessed 21 September 2022.

[47] As part of heightened supervision, an individual firm would become subject to additional regulatory attention in response to a particular set of crystallised risks.

[48] Treasury Committee, *Banking Crisis: The impact of the failure of the Icelandic banks*, (HC 2008–09, 402) <https://publications.parliament.uk/pa/cm200809/cmselect/cmtreasy/402/402.pdf> accessed 21 September 2022.

[49] The Icelandic banks were Glitnir, Landsbanki and Kaupthing. These banks had branches and subsidiaries in the UK, the Isle of Man and Guernsey, as well as across Europe.

In May 2009, the Treasury Committee published a report on 'Banking Crisis: dealing with the failure of the UK banks'.[50] Primarily, the report examined the causes of the failure of the UK banks and identified that the growth of risk and complexity, with simultaneous growth in profit, meant that few people in senior positions had a clear idea of banks' balance sheets. Furthermore, the rapid growth in the banking sector was facilitated by increased leverage. However, the sector relied heavily on wholesale funding and disregarded the possibility that liquidity from the wholesale market might dry up. The report also discussed the UK government's measures to support the UK banking industry, including support provided to Northern Rock, Bradford & Bingley, the merger of Halifax Bank of Scotland and Lloyds Bank, the October 2008 support package, and the recapitalisation of the banking system and of specific banks, including the Royal Bank of Scotland, Lloyds Bank and Barclays Bank.

In May 2009 the Treasury Committee also published a report on 'Banking Crisis: reforming corporate governance and pay in the City'.[51] This report concluded that the banking crisis had exposed serious deficiencies in the remuneration practices in the banking industry, in particular within investment banking. For example, bonus-driven remuneration structures encouraged reckless and excessive risk-taking and the design of bonus schemes was not aligned with the interests of shareholders and the long-term sustainability of the banks. The report highlighted the clear failings in the remuneration committees in the banking industry, with non-executive directors sanctioning the ratcheting up of remuneration levels for senior managers, while setting low performance targets. The report proposed a number of reforms which included enhanced disclosure requirements on firms regarding their remuneration structures, and remuneration beneath board–level, reforms to remuneration committees to ensure greater openness and transparency, and a Code of Ethics for remuneration consultants. In respect of governance matters, the report highlighted the failure of institutional investors to effectively scrutinise and monitor the decision of boards and executive management in the banking industry, and in some cases their encouragement of risk-taking which led to the downfall of some banking institutions. The report also highlighted concerns regarding auditor independence, and argued that investor confidence and trust in audit would be enhanced by a prohibition on audit firms carrying out more lucrative non-audit work for the same banking institution.

---

[50] Treasury Committee, *Banking Crisis: dealing with the failure of the UK banks* (HC 2008–09, 416) <https://publications.parliament.uk/pa/cm200809/cmselect/cmtreasy/416/416.pdf> accessed 21 September 2022.

[51] Treasury Committee, *Banking Crisis: reforming corporate governance and pay in the City* (HC 2008–09, 519) <https://publications.parliament.uk/pa/cm200809/cmselect/cmtreasy/519/519.pdf> accessed 21 September 2022.

In July 2009, a report on 'Banking Crisis: international dimensions' was published. This report briefly assessed some of the wider international repercussions of the crisis,[52] but focused on 'global imbalances' as a single aspect of the banking crisis. The 'global imbalances' referred to oil exporting countries, Japan, China, and several other east Asian emerging developing nations having accumulated large current account surpluses, whilst simultaneously large current account deficits emerged in the USA, the UK, Ireland, Spain and other countries. These surpluses were invested almost exclusively in apparently risk-free, or near risk-free government bonds or government-guaranteed bonds. As a result, there was a reduction in the worldwide real interest rate, which helped fuel a credit boom and risk-taking in major advanced economies, particularly in the US, thereby setting the conditions for the global financial crisis. In July 2009 the Treasury Committee published a report on 'Banking Crisis: regulation and supervision', which was the final report to be published under the series on the banking crisis.[53] While the report acknowledged the failure of the FSA to supervise the banking industry, it also recognised the steps the FSA had taken to improve its regulation of banks in response to the failings exhibited in its handling of Northern Rock. For example, the report embraced the Supervisory Enhancement Programme (SEP) and the increased intensity of supervision on the financial services industry proposed by the FSA. The report concluded that more complex and interconnected banks should have higher capital requirements, reflecting the greater impact they would have on the wider financial markets and the real economy if they were to fail. The Treasury Committee therefore supported the introduction of a leverage ratio to complement the more risk-sensitive minimum requirements under the Basel II capital accords, and an element of counter-cyclicality in capital regulation.

In March 2010, the Treasury Committee published a report on 'Too Important to Fail – Too Important to Ignore'.[54] The report stressed how the economic recession had been felt by the whole of society through loss of employment, financial hardship and lower living standards. As a result, the public would not tolerate another bailout of the banking system. The report recommended that the banking system, as one of the main conduits for lending to the real economy, should provide a steady and appropriately priced supply of credit. Secondly, that the regulatory authorities should ensure that any risks identified with new financial products were correctly priced. Thirdly, while the Basel capital and liquidity reforms were welcomed, the report

[52] Treasury Committee, *Banking Crisis: International Dimensions* (HC 2008–09, 615) <https://publications.parliament.uk/pa/cm200809/cmselect/cmtreasy/615/615.pdf> accessed 21 September 2022.

[53] Treasury Committee, *Banking Crisis: regulation and supervision* (HC 2008–09, 767) <https://publications.parliament.uk/pa/cm200809/cmselect/cmtreasy/767/767.pdf> accessed 21 September 2022.

[54] Treasury Committee, *Too important to fail – too important to ignore*, (HC 2009–10, 261–I) <https://publications.parliament.uk/pa/cm200910/cmselect/cmtreasy/261/261i.pdf> accessed 21 September 2022.

acknowledged that higher capital and liquidity requirements would impose a cost on firms and their customers and result in lower profits. Fourthly, the report emphasised the desirability of better coordination between regulators of international institutions, and consistent frameworks for regulation. However, the report acknowledged that regulation alone would not prevent global financial crises. The financial system required 'firebreaks and firewalls', to reduce the impact of crises when they occurred. Finally, the report recognised the broad support for 'living will' type resolution regimes. These would enable the government to impose losses on a banking institution's creditors, and allow for a banking institution to fail in an orderly manner. It would transfer some of the costs from the taxpayers and place them firmly within the financial industry. Moreover the creation of living wills would make financial institutions, and their investors, think carefully about how they might operate their businesses. Indeed, if fully applied, living wills would lead to a desirable structural reform of banking institutions.

2.1.2.2. Tripartite authorities

In the aftermath of the global financial crisis, between October 2007 and June 2011, the Tripartite authorities HM Treasury, the FSA, and the BoE published a series of reports on banking reform, financial stability and depositor protection, reform of the financial markets, and a new approach to financial regulation. In October 2007, HM Treasury's 'Banking Reform - Protecting Depositors: a Discussion Paper' was published.[55] This paper explained that in order to maintain consumer and market confidence, which were essential to maintaining financial stability, any reform had to meet certain objectives. Those were securing the confidence of retail depositors; maintaining wider market confidence by ensuring full transparency in the event of a widescale disruption to banking services; preserving the critical banking services appropriate to retail, business and wholesale customers; maintaining the UK's reputation as the pre-eminent location for financial services; protecting taxpayers' interests; and ensuring an appropriate sharing of costs between parties.

In January 2008, HM Treasury's 'Financial Stability and Depositor Protection: Strengthening the Framework' was published.[56] This proposed new legislation to address a number of objectives. Those included strengthening the stability and resilience of the financial system, given its

---

[55] HM Treasury, *Banking reform – protecting depositors: a discussion paper*' (2007) <https://www.treasurers.org/ACTmedia/bankingreform102007.pdf> accessed 21 September 2022.

[56] HM Treasury, *Financial stability and depositor protection: strengthening the framework* (2008) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/243413/7308.pdf> accessed 21 September 2022.

interconnectedness and complexity; reducing the likelihood of banks failing, given the high costs for the wider economy and society; reducing the impact of failing banks upon financial stability; effective compensation arrangements for consumers in the event of a bank failing; and strengthening the BoE and improving coordination and cooperation between the regulatory authorities so that they are effective in preventing and managing financial difficulties.

In July 2008, HM Treasury's 'Financial Stability and Depositor Protection: Special Resolution Regime' was published.[57] This provided further proposals for the SRR, together with draft legislative clauses. These included the BoE's powers to transfer all or part of the failing bank to a private sector purchaser or to a publicly-controlled bridge bank; a special bank administration procedure to facilitate partial transfers to a bridge bank; various powers for HM Treasury to take a failing bank into temporary public sector ownership, to make compensation arrangements for failing banks, their creditors and shareholders; and for a bank to be put into a bank insolvency procedure.

In September 2008, HM Treasury's 'Financial Stability and Depositor Protection: Cross-Border Challenges and Responses' was published.[58] This considered specific issues with regard to maintaining financial stability on a cross-border and global basis. The report acknowledged that the current market turbulence had brought some new challenges for financial stability. The scale, complexity and cross-border nature of businesses, with straddling national boundaries and jurisdictions, all posed issues for central banks, finance ministries, regulators and supervisors in preventing, managing and resolving crises in global financial markets. The report proposed a series of measures to address various objectives including strengthening the stability and resilience of the financial system; reducing the likelihood of banks facing difficulties through effective supervision; liquidity arrangements; and arrangements for overseeing cross-border financial infrastructures such as payment, clearing and settlement systems; reducing the impact of a bank failing; providing effective compensation arrangements; and improving coordination between regulatory authorities at a national and international level.

[57] HM Treasury, *Financial stability and depositor protection: special resolution regime* (Cm 7459, 2008) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/238704/7459.pdf> accessed 21 September 2022.

[58] HM Treasury, *Financial stability and depositor protection: cross-border challenges and responses* (2008) <https://webarchive.nationalarchives.gov.uk/ukgwa/20091123152032mp_/http://www.hm-treasury.gov.uk/d/PU625_-_Financial_Stability_4_final_1817a.pdf> accessed 21 September 2022.

In July 2009, HM Treasury published 'Reforming Financial Markets'.[59] This described the causes of the financial crisis; the action taken to restore financial stability; and the future regulatory reforms necessary to strengthen the financial system. It explained that the complexity of some of the new financial instruments, the global increase in leverage, and the increasingly interconnected global markets gave rise to dangers which banks, their boards and investors, as well as regulators and central banks did not fully understand. The remuneration policies of banks which incentivised short-term profit, supplemented the riskiness of the financial system. Moreover, market discipline was ineffective in constraining risk-taking in financial markets. There were also serious deficiencies in the corporate governance of banking institutions. In addition, institutional shareholders failed to monitor the effectiveness of banks' senior management, or to challenge the decisions of bank boards. Furthermore, banks and investors relied heavily on the opinions of credit rating agencies, and failed to supplement ratings opinions with conclusions from their own analyses or due diligence. Simultaneously, regulators and central banks, underestimated the risks that were accumulating in the financial system. They were not aware of banks' increasingly large exposures to off-balance sheet financing vehicles, and their lack of transparency. The government acknowledged that significant reforms had been made to the financial system, however they noted that there was still a need for further reform in the UK and globally. The government therefore proposed further measures to be brought in draft legislation which would provide for more effective prudential regulation and supervision of firms; greater emphasis on monitoring and managing system-wide risks; further confidence in the capabilities of the regulatory authorities; and greater protection for the taxpayer when an institution failed.

In July 2010, HM Treasury's 'A new approach to financial regulation: judgement, focus and stability' was published.[60] This reported on the emerging consensus on the fundamental causes of the crisis, which included factors such as global economic imbalances; mispriced and misunderstood risk; unsustainable funding and business models for banks; excessive accumulation of debt across the financial system; and the growth of an unregulated 'shadow banking' system. The report also made several institutional reform proposals. Primarily, the creation of the FPC within the BoE, which would be responsible for macro-prudential regulation, or regulation of stability and resilience of the financial system as a whole, and two new regulators – the PRA, an operationally independent subsidiary of the BoE, which would be responsible for

[59] HM Treasury, *Reforming financial markets* (CM 7667, 2009) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/238578/7667.pdf> accessed 21 September 2022.

[60] HM Treasury, *A new approach to financial regulation: judgement, focus and stability* (Cm 7874, 2010) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/81389/consult_financial_regulation_condoc.pdf> accessed 21 September 2022.

the prudential regulation of individual firms, and a consumer protection and markets authority (CPMA), which would carry out the regulation of conduct within the financial system. In February 2011, HM Treasury's 'A new approach to financial regulation: building a stronger system'[61] reiterated the institutional reform proposals, albeit the CPMA was renamed as the FCA. In June 2011, 'A new approach to financial regulation: the blueprint for reform' was published.[62] This white paper, which was produced following a detailed consultation process and policy development, set out the proposed institutional framework, including a draft legislative Bill together with draft explanatory notes.

2.1.2.3. Independent Commission on Banking

In June 2010, the UK government established the Independent Commission on Banking (the 'ICB') to consider structural and related non-structural reforms to the UK banking sector for the purpose of promoting financial stability and competition.[63] The ICB made three main recommendations relating to retail ring-fencing, loss-absorbency, and competition. The purpose of retail ring-fencing was to isolate banking activities which were fundamental to bank customers and to the economy, to ensure that the provision of these services was not threatened in any way; and secondly, that such provision could be maintained in the event of the bank's failure without government intervention.

In terms of loss-absorbency, the ICB recommended that ring-fenced banks with a ratio of risk-weighted assets (RWAs) to UK Gross Domestic Product (GDP) of 3% or more should have an equity-to-RWAs ratio of at least 10%. Meanwhile, ring-fenced banks with a ratio of RWAs to UK GDP between 1% and 3% should have a minimum equity-to-RWAs ratio set by a sliding scale from 7% to 10%. Secondly, the ICB recommended that all UK-headquartered banks and all ring-fenced banks should maintain a Tier 1 leverage ratio of at least 3%. Meanwhile, all ring-fenced banks with a RWAs-to-UK GDP ratio of 1% or more should have their minimum leverage

[61] HM Treasury, *A new approach to financial regulation: building a stronger system* (Cm 8012, 2011) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/81411/consult_newfinancial_regulation170211.pdf> accessed 21 September 2022.

[62] HM Treasury, *A new approach to financial regulation: the blueprint for reform* (Cm 8083, 2011) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/81403/consult_finreg__new_approach_blueprint.pdf> accessed 21 September 2022.

[63] The 'Independent Commission on Banking' was headed by Sir John Vickers. It is also known as the Vickers' Review. John Vickers, 'Independent Commission on Banking, Final Report, Recommendations' (2011) <https://webarchive.nationalarchives.gov.uk/ukgwa/20120827143059/http://bankingcommission.independent.gov.uk//> accessed 21 September 2022.

ratio increased to a maximum of 4.06% at a RWAs-to-UK GDP ratio of 3%. Thirdly, the resolution authorities should have a primary bail-in power enabling them to impose losses on long-term unsecured debt, or bail-in bonds, in resolution before imposing losses on other non-capital, non-subordinated liabilities. A secondary bail-in power would enable the resolution authorities to impose losses on all other unsecured liabilities in resolution. Fourthly, in insolvency situations, all insured depositors should rank ahead of other creditors who are either unsecured or only secured with a floating charge. Fifthly, UK-headquartered global systemically important banks (G-SIBs) with a 2.5% G-SIB surcharge, and ring-fenced banks with a ratio of RWAs to UK GDP of 3% or more, should be required to have capital and bail-in bonds, which together mean primary loss-absorbing capacity equal to at least 17% of RWAs. Meanwhile, UK G-SIBs with a G-SIB surcharge below 2.5%, and ring-fenced banks with a ratio of RWAs to UK GDP of in between 1% and 3%, should be required to have primary loss-absorbing capacity set by a sliding scale from 10.5% to 17% of RWAs. Finally, with regard to resolution buffers, the ICB recommended that the supervisor of any (i) G-SIB headquartered in the UK; or (ii) ring-fenced bank with a ratio of RWAs to UK GDP of 1% or more, should be able to require the bank to have additional primary loss-absorbing capacity of up to 3% of RWAs if the supervisor has concerns about its ability to be resolved at minimum risk to the taxpayer. Moreover, the supervisor should determine how much additional primary loss-absorbing capacity (if any) is required; what form it should take; and which entities in a group the requirement should apply to, and whether on a (sub-)consolidated or solo basis.

In terms of competition, the ICB recommended that the PRA should work with the Office of Fair Trading (OFT) to review the application of prudential standards to ensure that prudential requirements for capital and liquidity do not unnecessarily create barriers to entry for new market participants. Secondly, the ICB recommended the establishment of a current account redirection service, to smooth the process of switching current accounts for individuals and small businesses. Thirdly, the OFT, and the FCA should work with the banks to improve transparency across all retail banking products. The UK government adopted the ICB's recommendations relating to retail ring-fencing, loss-absorbency and competition, which were given effect by provisions in the Financial Services (Banking Reform) Act 2013.

2.1.2.4. Parliamentary Commission on Banking Standards

The Parliamentary Commission on Banking Standards (PCBS) was appointed by both Houses of Parliament in July 2012. It was established following the global financial crisis, however, specifically after the fallout of the 2012 London Inter-bank Offered Rate (LIBOR) scandal. The PCBS was appointed to consider and report on professional standards and culture of the UK

banking industry, taking account the regulatory and competition investigations into the LIBOR rate-setting process; lessons to be learned about corporate governance; transparency and conflicts of interest, and their implications for regulation and for government policy; and to make recommendations for legislative reform. The PCBS observed that the post-crisis regulatory reforms were aimed at improving financial stability and internalising the cost of losses. However, it resolved that prudential and conduct failures occurred simultaneously across banking, which was the result of common deficiencies of standards and culture.[64] The PCBS considered that measures aimed at improving financial stability would not remedy other underlying causes of poor standards and culture. The low standards and poor culture in UK banking and financial services had been caused by a number of factors. In particular, banks had become too big, too important and too complex to be allowed to fail. Competition, especially in retail banking, was weak, reducing banks' incentives to address failings in standards. Individual incentives were misaligned, with insufficient individual accountability at senior levels. Remuneration structures led to a fundamental misalignment of risk and reward. Finally, regulation was misconceived, poorly targeted, and too narrowly rules-based rather than judgement-based. The PCBS considered that there was now an opportunity to reform the banking industry to provide for higher standards of conduct.

The PCBS published a number of reports on banking standards, banking reform, proprietary trading, and the failure of the Halifax Bank of Scotland (HBOS).[65] It also recommended a number of legislative and other measures to address the wide-ranging and deep-seated industry problems.[66] These recommendations focused on a number of themes. Those included strengthening individual responsibility in banking, especially at the most senior levels; reforming corporate governance within banks to reinforce each bank's responsibility for its own safety and soundness and for the maintenance of standards; creating better functioning and more diverse banking markets in order to empower consumers and provide greater discipline on banks to raise standards; reinforcing the responsibilities of regulators in the exercise of judgement in deploying

---

[64] Parliamentary Commission on Banking Standards, *Changing Banking for Good* (2013–14, HL Paper 27-II HC 175-II) <https://www.parliament.uk/globalassets/documents/banking-commission/Banking-final-report-vol-ii.pdf> accessed 21 September 2022.

[65] Parliamentary Commission on Banking Standards, *Banking reform: towards the right structure* (2012–13, HL Paper 126
HC 1012) <https://publications.parliament.uk/pa/jt201213/jtselect/jtpcbs/126/126.pdf> accessed 21 September 2022; Parliamentary Commission on Banking Standards, *Proprietary trading* (2012–13, HL Paper 138 HC 1034) <https://publications.parliament.uk/pa/jt201213/jtselect/jtpcbs/138/138.pdf> accessed 21 September 2022. Parliamentary Commission on Banking Standards, *An accident waiting to happen: The failure of HBOS* (2012–13, HL Paper 144 HC 705) <https://publications.parliament.uk/pa/jt201213/jtselect/jtpcbs/144/144.pdf> accessed 21 September 2022.

[66] The Commission's proposals built upon the recommendations of the Independent Commission on Banking.

their current and proposed new powers, and specifying the responsibilities of the government and of future governments and parliaments.[67] The PCBS concluded that failings in the banking sector and the existing Approved Persons Regime[68] were attributable to the lack of individuals' sense of responsibility and lack of senior management accountability. This had led to uncertainty around accountability for specific breaches, which the new senior managers and certification regime[69] sought to address. The PCBS recommended strengthening individual accountability by introducing a new Senior Managers Regime, which would govern the behaviour of senior bank employees, introduce new fit and proper standards for all bank employees, and enable the regulators to make rules of conduct which applied to all employees. In addition, the PCBS recommended introducing a new criminal offence for reckless misconduct for senior bankers, and reversing the burden of proof so that senior managers in banks were held accountable for breaches within their areas of responsibility. The majority of these measures, amongst others, were given effect by provisions in the Financial Services (Banking Reform) Act 2013.

2.1.3. Legislative reforms

2.1.3.1. The Banking Act 2009

The Banking Act 2009 (the '2009 Act') included provisions for the establishment of a permanent SRR. The SRR provided the regulatory authorities with tools to manage banks which entered into financial difficulties. The SRR included three stabilisation options. Those were the transfer to a private sector purchaser, a bridge bank, or to temporary public sector ownership; the bank insolvency procedure; and the bank administration procedure. The objectives of the SRR were to protect and enhance the stability of the UK's financial system, and public confidence in the stability of the UK's banking system; to protect depositors; to protect public funds; and to avoid interfering with property rights in contravention of the Convention rights (within the meaning of the Human Rights Act 1998).[70] Secondly, the 2009 Act included provisions on bank insolvency procedures for the orderly winding up of a failed bank, and to facilitate rapid Financial Services Compensation Scheme (FSCS) payments to eligible claimants or a transfer of such accounts to another financial institution. Thirdly, the 2009 Act included provisions on bank administration

[67] James Goddard, 'Parliamentary Commission on Banking Standards QSD on 3 September 2019' *House of Lords Library Briefing*, <https://researchbriefings.files.parliament.uk/documents/LLN-2019-0109/LLN-2019-0109.pdf> accessed 21 September 2022.

[68] The Approved Persons Regime (APER) was introduced by the FSMA 2000.

[69] The APER was replaced by the Senior Managers & Certification Regime (SM&CR).

[70] This refers to the right to the peaceful enjoyment of property, under Article 1 of the First Protocol of the European Convention on Human Rights, which is incorporated in Schedule 1 of the Human Rights Act 1998.

procedures where there has been a partial transfer of business from a failing bank. A bank administrator could be appointed by the BoE to administer the affairs of an insolvent residual bank created under the SRR where part of a bank has been transferred to a private sector purchaser or to a bridge bank. Finally, the 2009 Act included provisions relating to the FSCS, which provided for further powers to amend the scheme, and for HM Treasury to make regulations specific to the FSCS.

2.1.3.2. Financial Services Act 2012

The Financial Services Act 2012 (the '2012 Act') provided the new framework for financial regulation in the UK. The 2012 Act established the FPC, as a committee of the BoE. The FPC had responsibility for macro-prudential regulation, or regulation for the stability and resilience of the system as a whole. The 2012 Act established the PRA as an operationally independent subsidiary of the BoE with responsibility for micro-prudential regulation. The PRA would regulate institutions that manage significant risks on their balance sheets, which required a sophisticated level of prudential regulation. It also established the FCA as an independent conduct regulator with a strategic objective of ensuring that the relevant markets function well and operational objectives focused on market integrity, consumer protection and effective competition. The BoE would be responsible for the regulation of systemically important clearing, payment and settlement infrastructure. The 2012 Act required the FCA and PRA to coordinate their functions effectively, placing upon them a statutory duty to coordinate with each other and to cooperate with the BoE, and to produce a memorandum setting out how they would comply with this duty. The 2012 Act empowered the PRA to veto an action to be taken by the FCA if it was likely to threaten the stability of the UK financial system or, if the action related to with profits policies, it was desirable in order to advance the PRA's general objective or its insurance objective. In addition, the 2012 Act provided for mechanisms that would define the relationships between HM Treasury, the BoE, the PRA and the FCA in the event of a crisis in the financial system. Finally, the 2012 Act provided powers to regulate activities related to the setting of benchmarks such as LIBOR, and a tailored criminal regime in relation to benchmark setting activities, which included two offences of making false or misleading statements in the course of arrangements for setting a relevant benchmark; and creating a false or misleading impression as to the price or value of an investment, or as to the appropriate interest rate for a transaction.

2.1.3.3. Financial Services (Banking Reform) Act 2013

The Financial Services (Banking Reform) Act 2013 (the '2013 Act') implemented the recommendations of the ICB and the PCBS. In addition, the 2013 Act conferred power on the

BoE to adopt the 'bail-in option' in relation to banks, building societies, investment firms and banking group companies for the purposes of stabilising a failing financial institution. Following the ICB's recommendations, the 2013 Act included provisions for the ring-fencing of core banking activities from wholesale or investment banking activities which involved a greater degree of risk and exposed an entity to financial difficulties arising elsewhere in the global financial system. The general objective of the PRA was amended to require it to discharge its general functions in relation to ring-fencing and ring-fenced bodies to protect the continuity of the provision in the UK of the core services related to core banking activities. Further, provision was made to ensure that, in the event that the FCA became responsible for regulating a core banking activity, it would have an additional objective to protect the continuity of core services associated with that core banking activity. Following the PCBS recommendations, the 2013 Act introduced the new Senior Managers & Certification Regime (the 'SM&CR'), which applied to banks, other deposit takers and investment firms regulated by the PRA only. The SM&CR consisted of the senior managers regime (SMR), the Certification Regime, and the conduct rules (COCON). It also included a new criminal offence relating to a decision causing a financial institution to fail. The SMR focused on individuals performing a senior management function specified by the FCA or the PRA, and imposed new accountability obligations on the most senior decision makers in banking institutions or investment firms. The Certification Regime applied to all employees of relevant firms who were not senior managers who could pose a risk of significant harm to the firm, its reputation or any of its customers. The conduct rules were high-level requirements that applied to a person in scope of the SMR and the Certification Regime. The measures relating to individual and senior level conduct rules were implemented through delegated authority.

2.1.3.4. Bank of England and Financial Services Act 2016

The Bank of England and Financial Services Act 2016 (the '2016 Act') ended the PRA's status as a subsidiary of the BoE. The PRA was now the BoE. The new BoE committee, the Prudential Regulation Committee, had responsibility for the BoE's functions as the PRA. The 2016 Act extended the SM&CR to all firms which were authorised to provide financial services under FSMA 2000.[71] Under the 2016 Act, a senior manager would no longer have to prove that they had taken reasonable steps to prevent a regulatory contravention to avoid being found guilty of misconduct. Moreover, the regulators would need to prove that a senior manager had not taken such steps before they could bring disciplinary proceedings. The 2016 Act also imposed a duty

[71] The government considered that the SM&CR should extend to all types of financial services firms and therefore legislated this amendment in the 2016 Act.

on the BoE to provide information to HM Treasury when firms' resolution strategies were developed or updated, and provided HM Treasury with powers to request specified information supporting the Bank's assessment of public funds risks associated with the failure of a firm.

2.2. Financial scandals

Since the fall out from the global financial crisis, there has been a history of widespread regulatory failures, and poor or inappropriate practices by financial institutions. This has caused significant and widespread harm to consumers, particularly small and medium enterprises (SMEs) and retail customers. This includes the misselling of regulated financial products, including endowment policies; personal pensions; split capital investment trusts; precipice bonds; payment protection insurance (PPI); and, more recently, interest rate hedging products. This also includes the unlawful promotion of unregulated collective investment schemes to retail customers,[72] and poor lending practices, such as banks' treatment of SME customers in financial distress.[73] In addition to the above regulatory failures, the global financial crisis also exposed the manipulation of various benchmarks[74] including LIBOR[75], Euro Interbank Offered Rate (EURIBOR)[76], gold price[77], and foreign exchange (FX).[78] Since the coming in force of legislation discussed above, we have seen further scandals involving London Capital and Finance and cryptoassets. This next section will provide a summary of some of those scandals.

2.2.1. Benchmark manipulation

[72] Connaught Income Fund involved claims that the operators of the Connaught Series 1 Income Fund had unlawfully promoted the investment scheme to retail investors and were responsible for misleading promotional literature.

[73] The treatment of SME customers by the Royal Bank of Scotland's (RBS's) Global Restructuring Group's (GRG's) provides an illustrative example.

[74] Benchmarks are used in a number of financial markets to set prices, measure performance, or calculate amounts payable under financial contracts. The legal definition of a 'benchmark' is set out in section 22(6A) FSMA 2000, and Article 3(1)(3) of the UK Benchmarks Regulation (UK BMR), which is the UK version of Regulation (EU) 2016/1011.

[75] The London Inter-bank Offered Rate (LIBOR), which was the most widely used benchmark for interest rates for many years, represented the rate at which large banks in London were willing to lend to each other on an unsecured basis.

[76] The eurozone inter-bank market or EURIBOR is based on the average interest rate at which a panel of European banks borrow funds from one another for a particular term Another example is the inter-bank market in Tokyo ("TIBOR").

[77] The gold price benchmark, or gold fix, is a century-old benchmark. The LBMA Gold Price is administered independently by ICE Benchmark Administration (IBA) <https://www.lbma.org.uk/prices-and-data/lbma-gold-price> accessed 21 September 2022.

[78] The foreign exchange market ("FX market") is one of the largest and most liquid markets in the world <https://www.bis.org/statistics/rpfx19_fx.htm> accessed 21 September 2022.

In the years that followed the global financial crisis, the regulatory authorities in the US[79] and the UK investigated a number of benchmark manipulation scandals. In the UK, the FCA and its predecessor, the FSA, imposed a number of fines on firms following attempted manipulation of LIBOR[80], EURIBOR, gold price[81] and FX[82] benchmarks. The FCA also brought enforcement proceedings against individuals for misconduct regarding these benchmarks.[83] In July 2012, the FSA imposed the first fine for LIBOR and EURIBOR manipulation against Barclays in the sum of £60 million.[84] It was discovered that individual traders had been manipulating the rate for the bank as a whole to give the false impression that it was in better financial health than in reality. This was termed as 'low-balling'. This involved traders falsely providing low LIBOR rates, giving the dishonest impression that they could borrow money much more cheaply than they genuinely could.[85] However, the traders were also manipulating the rate for personal financial gain. This practice was termed as 'high-balling'. This type of manipulation benefitted traders, but also banks in their position as lenders, as they received higher interest on LIBOR-linked products. The FSA's proceedings against Barclays were followed by similar exposures at RBS, ICAP, Rabobank, Lloyds and Bank of Scotland, UBS, Martin Brokers and Deutsche Bank. The total amount of fines for LIBOR and EURIBOR related misconduct was over £757 million.[86] Subsequently in 2014 and 2015, the FCA fined Barclays, Citibank, HSBC, JPMorgan Chase Bank, Royal Bank of Scotland and UBS a total of £1.4 billion for FX business control failures.[87]

---

[79] The Commodity Futures Trading (CFTC), is an independent agency of the US government and regulates the US derivatives markets. The CFTC initiated an investigation in 2008 related to LIBOR <https://www.cftc.gov/PressRoom/SpeechesTestimony/opagensler-143> accessed 21 September 2022.

[80] Barclays, UBS, RBS, ICAP, Rabobank, Martin Brokers, Lloyds and Bank of Scotland and Deutsche Bank were fined over £757m for LIBOR and EURIBOR related misconduct <https://www.fca.org.uk/markets/benchmarks/enforcement> accessed 21 September 2022.

[81] The FCA fined Barclays plc £26 million for misconduct regarding the gold fixing benchmark. The FCA also banned and fined a former Barclays options trader £95,600 <https://www.fca.org.uk/publication/final-notices/barclays-bank-plc.pdf> accessed 21 September 2022.

[82] The FCA imposed fines totalling £1,114,918,000 ($1.7 billion) on five banks for failing to control business practices in their G10 spot FX trading operations <https://www.fca.org.uk/news/press-releases/fca-fines-five-banks-%C2%A311-billion-fx-failings-and-announces-industry-wide-remediation-programme> accessed 21 September 2022.

[83] In 2014, the FCA also banned and fined a trader £662,700 for manipulating the UK government bond (gilt) price during quantitative easing (QE) operations.

[84] This was the largest fine ever imposed by the FSA. <https://www.fca.org.uk/news/press-releases/barclays-fined-%C2%A3595-million-significant-failings-relation-libor-and-euribor> accessed 21 September 2022.

[85] This type of manipulation benefitted banks in their position as borrowers as this reduced their interest repayments. See BBC Radio 4 Programme, 'The Lowball Tapes' by Andy Verity, BBC Economics Correspondent <https://www.bbc.co.uk/programmes/m0014wtn> accessed 21 September 2022.

[86] <https://www.fca.org.uk/markets/benchmarks/enforcement> accessed 21 September 2022.

[87] n 86 above.

In addition, an industry-wide remediation programme was launched in November 2014.[88] The purpose was to ensure that firms addressed the root causes of the business failures which enabled G10 spot FX traders to manipulate G10 spot FX currency rates[89] and collude with traders at other firms, which disadvantaged clients, other market participants and the wider UK financial system. Furthermore, in 2014 the FCA fined Barclays £26 million for misconduct relating to the gold fixing benchmark, and banned and fined a former Barclays options trader £95,600.[90] The PCBS argued that revelations of benchmark manipulation exposed deliberate, conscious deception for personal financial advantage, which led to public outrage. In addition, there was an overall consensus that since the reputation of banks fell so dramatically an explicit policy response was required.

2.2.2. Interest rate hedging products

In June 2012, following their initial investigation, the FSA announced that it had found evidence of poor practices in the way that some banks sold certain interest hedging products (IRHPs) to retail clients or private customers on or after 1 December 2001. The FSA was concerned that such practices, combined with product complexity, customer sophistication and sales incentives had led to poor outcomes for customers. The FSA's concerns, which applied across all the banks, included inappropriate sales of structured collars and other more complex varieties of IRHPs, poor sales practices used in selling the IRHPs, and sales rewards and incentive schemes that could have exacerbated the risk of poor sales practices. The FSA identified a range of inappropriate or poor sales practices including poor disclosure of break or exit costs; failure to ascertain the customers' understanding of risks inherent in the IRHPs; non-advised sales straying into advised sales; over-hedging, where the amounts and/or duration of the hedging did not correspond to the underlying loans; rewards and incentives being a driver of these poor practices; and poor record keeping. The FSA considered a more consensual route to redress would provide the most cost-efficient solution for SMEs, rather than formal enforcement proceedings.

[88] <https://www.fca.org.uk/news/news-stories/fx-remediation-programme-our-next-steps> accessed 21 September 2022.

[89] The FCA's investigation focused on the G10 currencies, which are the most widely-used and systemically important, and on the 4pm WM Reuters and 1:15pm European Central Bank fixes <https://www.fca.org.uk/news/press-releases/fca-fines-five-banks-%C2%A311-billion-fx-failings-and-announces-industry-wide-remediation-programme> accessed 21 September 2022.

[90] n 86 above.

The FSA entered into voluntary agreements with each of Barclays, Lloyds, RBS, and HSBC, and five other banks[91], which undertook to review approximately 40,000 or more of their past sales of IRHPs made to unsophisticated SMEs on or after 1 December 2001. In particular, the banks undertook to provide proactive redress on the sales to unsophisticated retail clients or private customers made on or after 1 December 2001 for all structured collars; to review the sale of a cap made on or after 1 December 2001, where an unsophisticated retail client made a complaint during the review; and to carry out a past business review of sales of all other IRHPs. The past business review included considering all of the evidence and the individual circumstances of the customer; and if a breach of the regulatory requirements occurred, determining and providing appropriate redress on the basis of what is fair and reasonable. The banks also undertook to cease all marketing of structured collars to unsophisticated retail clients. In 2020, the banks completed their reviews of IRHP sales. Collectively, the banks have paid £2.2 billion of redress payments to their customers. They have also set aside money to cover the costs of early termination of IRHPs, of employing more than 3,000 people to carry out the reviews, and of engaging independent reviewers. [92]

2.2.3. London Capital & Finance

London Capital Finance plc (LCF) was an FCA authorised firm, which issued unregulated non-transferable debt securities, commonly known as 'mini-bonds' to investors. The firm subsequently used the proceeds of the mini-bonds to make commercial loans to SMEs.[93] While mini-bonds tend to offer high interest rates, they are often associated with greater risk as the failure rate of SMEs is high. Moreover, mini-bonds are usually illiquid as they are not transferable, and they are not regulated. Therefore, if the issuer fails, there is no FSCS protection. The issuance of mini-bonds is an exempted regulated activity and falls outside the regulatory perimeter.[94] However, when an authorised firm approves a promotion for mini-bonds, they must

---

[91] The other five banks were Allied Irish Bank (UK), Bank of Ireland, Clydesdale & Yorkshire Banks, Co-operative Bank and Santander UK.

[92] <https://www.fca.org.uk/consumers/interest-rate-hedging-products> accessed 21 September 2022.

[93] Rt. Hon. Dame Elizabeth Gloster DBE, 'Report of the Independent Investigation into the Financial Conduct Authority's Regulation of London Capital & Finance plc', (2020) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/945247/Gloster_Report_FINAL.pdf> accessed 21 September 2022.

[94] The regulatory perimeter is determined by the FSMA (Regulated Activities) Order 2001 which specifies the kinds of activities and investments, which for the purpose of Section 22 FSMA 2000, are regulated activities.

ensure that it is fair, clear and not misleading.[95] LCF went into administration in January 2019, and by this time 11,625 bondholders had invested about £237 million.[96] The government acknowledged that LCF's failure had a significant impact on the bondholders who had lost their hard-earned savings.[97] Moreover, the regulatory system that was designed to protect their interests had let them down.[98] In May 2019, HM Treasury directed the FCA to carry out an independent investigation into the circumstances surrounding the collapse of LCF and the FCA's regulation and supervision of LCF. The investigation was led by Dame Elizabeth Gloster, and the independent review was published in December 2020 (the 'Gloster Report').[99] The Gloster Report concluded that the FCA failed to discharge its functions regarding LCF in a manner which enabled it to fulfil its statutory objectives effectively during the relevant period. It made a series of recommendations which were targeted at both the FCA's policies and practices, and the regulatory regime more broadly. HM Treasury also announced that it would review the wider policy questions raised by the case of LCF in relation to the regulatory and tax treatment of the mini-bonds issued by LCF.[100]

Bondholders have been awarded compensation through four different means. Primarily, LCF's joint administrators, Smith & Williamson, have been bringing legal proceedings to recover money. This process is ongoing, however, the likely recoveries are estimated to be as low as 25% of a bondholder's investment.[101] Secondly, the FSCS identified and contacted all LCF customers who were eligible for FSCS compensation. These were bondholders who received misleading

[95] COBS 4.2 *Fair, clear and not misleading communications,* COBS 4.2.1R *The fair, clear and not misleading rule* (1) A firm must ensure that a communication or a financial promotion is fair, clear and not misleading.

[96] John Glen, 'London Capital and Finance Statement made on 19 April 2021 (Statement UIN HCWS922) <https://questions-statements.parliament.uk/written-statements/detail/2021-04-19/hcws922> accessed 21 September 2022.

[97] n 96 above.

[98] n 96 above.

[99] n 93 above.

[100] On 19 April 2021, HM Treasury published a consultation paper on proposals to bring the issuance of non-transferable debt securities, (commonly referred to as mini-bonds), within the scope of financial services regulation <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/999743/Non-transferable_debt_securities_consultation_update__2_.pdf> accessed 21 September 2022. Subsequently, on 1 March 2022, HM Treasury published a document setting out its response to the April 2021 consultation paper on the proposals <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1058013/NTDS_Consultation_response_document_revised__Final___1_.pdf> accessed 21 September 2022.

[101] The joint administrators progress report dated 25 February 2022 for the period from 30 July 2021 to 29 January 2022 confirms that the joint administrators still expect that the total return to the secured creditors will represent at least 25% of their claims <https://www.evelyn.com/media/r5gjq55f/joint-administrators-progress-report-30-july-2021-to-29-january-2022.pdf> accessed 21 September 2022.

advice to invest in mini-bonds from LCF or Surge Financial Limited, an online marketing firm which acted on behalf of LCF, or had invested in mini-bonds following transfers out of stock and shares ISAs.[102] In April 2021, the FSCS completed their review of all the evidence received from LCF and Surge Financial Limited, and paid out £57.6 million to 2,871 LCF bondholders who held 3,900 LCF bonds. Thirdly, the FCA have been considering claims for compensation from LCF bondholders through their complaints scheme, which is available to bondholders who suffered financial loss as a result of action or inaction by the FCA. Fourthly, the government establish a compensation scheme for bondholders, who had lost money following LCF's collapse.[103] The scheme, the details of which were announced in April 2021, provided 80% of LCF bondholders' initial investment up to a maximum of £68,000, and was available to all LCF bondholders who had not already received compensation from the FSCS. The FSCS has paid out £114 million in compensation for 12,330 bonds under the government scheme.[104]

The failure of LCF called into question whether the existing regulatory system, which was designed to ensure that investors have the right information to understand their financial risks, adequately protects consumers. For example, the increasing role of unregulated intermediaries in the online sale of mini-bonds and other speculative illiquid securities presented significant risks to consumers. The nature of their marketing and sales processes suggested they were conducting regulated business in breach of section 19 *The general prohibition* FSMA 2000[105], and/or in breach of the restriction on financial promotions in section 21 *Restrictions on financial promotion* FSMA 2000.[106] However, the ability of the FCA to investigate unregulated, online sales channels, which involved the utilisation of search engines and social media, is fraught with technical difficulties.[107] For example, online sales channels use algorithms to generate personalised results in response to search phrases such as 'high return investments'. They involve payments made by

---

[102] 'Advising on investments' and 'arranging a transfer out of a stocks and shares ISA' are each a regulated activity under the RAO, which give rise to valid claims for FSCS compensation.

[103] The government's compensation scheme, which is being administered by the FSCS, was launched on 3 November 2021. The government expected to pay about £120 million in compensation, and the scheme to have paid all bondholders by 20 April 2022.

[104] <https://www.fscs.org.uk/making-a-claim/failed-firms/lcf/> and <https://www.fca.org.uk/news/news-stories/london-capital-and-finance-plc> accessed 21 September 2022.

[105] A person who is not authorised or exempt is prohibited from carrying on any regulated activity in the UK by FSMA 2000, s 19 *The general prohibition*, and in so doing commits a criminal offence under FSMA 2000, s 23 *Contravention of the general prohibition*.

[106] A person must not, in the course of business, communicate an invitation or inducement to engage in investment activity or to engage in claims management activity, unless the promotion has been made or approved by an authorised person or it is exempt.

[107] n 93 above.

the promoter to the search engine provider in return for placing the promoter at the top of the search results. They also include the generation of an on-line invitation to the consumer to provide their contact details, with no clear identification of who is responsible for the invitation, or precisely what products are being offered, and a follow-up communication encouraging consumers to self-certify as 'high net worth' or 'sophisticated' to bring them within one of the exemptions set out in the FSMA 2000 (Financial Promotion) Order 2005.[108] Under the current legislative framework, for the FCA to investigate online sales channels, it would need to follow the same 'customer journey' as the consumer, in effect through 'mystery shopping', and comply with restrictions in the Regulation of Investigatory Powers Act 2000 and the E-Commerce Directive; gather evidence of a breach; and locate and identify the wrongdoer, before it could start a criminal investigation or prosecution.[109] This whole process would consume considerable time and financial resources. In light of these challenges, the Gloster Report recommended that the government improve the legislative framework to enable the FCA to intervene promptly and effectively in the marketing and sale through technology platforms and unregulated intermediaries of speculative illiquid securities and similar retail products.[110] The Gloster Report also recommended that financial harms should be covered in the proposed Online Harms Bill.[111] Subsequently, on 8 March 2022 the government announced that the Online Safety Bill[112] would deal with fraudulent advertising. The Online Safety Bill currently imposes a duty of care on services that host user-generated content, social media providers and search engines to prevent the proliferation of illegal content and activity online, and ensure that children and adults who use their services are not exposed to harmful content. A new standalone duty to protect against fraudulent advertising has been added to the Online Safety Bill.[113] This requires the largest and most popular social media platforms and search engines to prevent paid-for fraudulent adverts appearing on their online services.[114]

2.2.4. Cryptoassets

[108] There are over 70 exemptions in the FSMA 2000 (Financial Promotion) Order 2005.

[109] n 93 above.

[110] Many investors were drawn to LCF by online adverts promising great returns <https://www.ft.com/content/b881f191-16ac-4eed-84d0-bd6c79d461d7> accessed 21 September 2022.

[111] n 93 above.

[112] The Online Harms Bill was renamed the Online Safety Bill in May 2021.

[113] Adverts are deemed fraudulent if they are paid for, and breach one the following provisions: FSMA 2000, s 23 *Contravention of the general prohibition*; s 24 *False claims to be authorised or exempt*; and s 25 *Contravention of section 21*.

[114] The duty, which will be regulated by Ofcom, will require services to put in place proportionate systems and processes to prevent, or in the case of search services, to minimise, individuals from encountering fraudulent advertising.

Cryptoassets are defined as cryptographically secured digital representations of value or contractual rights that use distributed ledger technology (DLT)[115] which can be transferred, stored or traded electronically.[116] The cryptoassets market has also led to the development of 'tokenisation', which is a process by which rights to an asset are recorded as digital tokens.[117] Cryptoassets are mostly treated as assets or commodities, rather than fiat currency or money. Cryptoassets have typically three uses: (a) as a means of exchange, usually functioning as a decentralised tool to enable the buying and selling of goods and services, or to facilitate regulated payment services; (b) for investment, with firms and consumers gaining direct exposure by holding and trading cryptoassets, or indirect exposure by holding or trading financial instruments that reference cryptoassets; (c) to support capital raising and/or the creation of decentralised networks through initial coin offerings (ICOs) or other distribution mechanisms. The categorisation of a cryptoasset therefore depends ultimately upon whether it has an underlying asset, whether it operates as a payment, and the rights and entitlements that attach to its ownership.[118]

Regulatory authorities have classified cryptoassets as cryptocurrencies[119]; utility tokens; and security tokens.[120] Cryptocurrencies are designed to act as a medium of exchange, a store of value and a unit of account. These include tokens such as Bitcoin, Ether and Litecoin. Typically, they are used as a way to reward market makers who create liquidity on a cryptocurrency exchange. Utility tokens confer upon their holders the right or ability to access a product, asset or service.[121] For example, a utility token might entitle its holder to exchange it for a number of hours streaming music or media entertainment. Some examples of utility tokens include Golem, Sonm, Siacom, OmiseGo and Augur.[122] Cryptocurrencies may also serve the purpose of a utility token, however the use is restricted to the token's own eco-system. For example, Ether is required to pay for transactions and computational processes, and is given to miners as a reward for securing and validating transactions.[123] However, Ether has a dual purpose, as it can also be used as a payment

---

[115] Similar to blockchain, cryptoassets are not issued or supported by a central bank or other established authority.

[116] <https://www.fca.org.uk/firms/cryptoassets> accessed 21 September 2022.

[117] Claude Brown, 'Cryptoassets and Initial Coin Offerings' in Jelena Madir (ed), *Fintech Law and Regulation*, (Edward Elgar Publishing 2019).

[118] n 117 above.

[119] Cryptocurrencies are also referred to a 'cryptocoins', 'payment tokens' or 'exchange tokens'.

[120] n 117 above.

[121] n 117 above.

[122] n 117 above.

[123] n 117 above.

instrument.[124] Security tokens are issued for purposes of raising capital through an ICO[125], the tokenisation of ownership rights, or profit sharing. These tokens once issued may be traded on a secondary market, which may be an organised platform or an informal market.[126] While activities relating to cryptoassets are not currently regulated by the FCA[127], given that security tokens are used for capital-raising, they are likely to be treated as a 'Specified Investment' under the RAO, or 'Financial Instruments' such as 'Transferable Securities' under the Markets in Financial Instruments Directive II similar to shares, bonds, contracts for differences or units in a fund.[128] As a result, they will likely fall within the FCA's regulatory perimeter.[129] Cryptoassets such as utility tokens, which are captured under the Payment Services Regulations, or the E-Money Regulations are also likely to fall within the FCA's regulatory perimeter.

UK consumers are being increasingly targeted by cryptoasset-related investment scams through search engines such as Google and Bing and social media.[130] Some of those offering or promoting such products or investment opportunities are not authorised or regulated by the FCA.[131] The FCA has expressed concerns regarding the range of substantial risks posed by cryptoassets, as consumers are purchasing unsuitable products without access to adequate information to value and assess the risks of investing in such products.[132] In their final report, the Cryptoassets Taskforce, which comprised HM Treasury, the BoE and the FCA, identified a range of risks associated with cryptoassets, such as financial crime, including opportunities for cryptoassets to be used for illicit activity and cyber threats; risks to consumers, who may buy unsuitable products, face large losses, be exposed to fraudulent activity, struggle to access market services, and be exposed to the failings of service providers; market integrity, which may lead to consumer losses or damage confidence in the market; and potential implications for financial stability, which may

[124] n 117 above.

[125] There are significant risks associated with ICOs, particularly around high failure rates, or fraudulent ICOs <www.esma.europa.eu/sites/default/files/library/esma22-106-1338_smsg_advice_-_report_on_icos_and_crypto-assets.pdf> accessed 21 September 2022.

[126] n 117 above.

[127] Cryptocurrencies or exchange tokens such as Bitcoin are only regulated in the UK for money laundering purposes.

[128] <https://www.fca.org.uk/publication/consultation/cp19-03.pdf> accessed 21 September 2022.

[129] Therefore, consumers are unlikely to have access to the Financial Ombudsman Service, a dispute resolution service, or the FSCS if they suffer loss.

[130] <https://www.fca.org.uk/scamsmart/cryptoasset-investment-scams> accessed 21 September 2022.

[131] n 130 above.

[132] <https://www.fca.org.uk/publication/consultation/cp19-03.pdf> accessed 21 September 2022.

arise if the market grows and cryptoassets are more widely used.[133] The Cryptoassets Taskforce found that misleading advertising, and a lack of suitable information, was a key consumer protection issue in cryptoasset markets. For example, cryptoassets advertising, which is often targeted at retail investors, was not fair or clear and could be misleading, often overstated benefits and rarely warned of volatility risks. There were also examples of regulated firms marketing cryptoasset products without stating clearly that this part of their business was not regulated.

In light of the rise of increasingly complex and high-risk financial products, changes to the way in which investors invest due to digital innovation and the increasing use of social media platforms to promote regulated products and services and other investments, HM Treasury and the FCA were concerned that the efficacy of the financial promotion regime, which was designed to ensure that consumers were provided with the necessary information to make informed investment decisions, was being impacted. Following the publication of their cryptoassets promotions consultation,[134] HM Treasury confirmed its intention to amend the FSMA 2000 (Financial Promotion) Order 2005 to bring the promotion of 'qualifying cryptoassets'[135] within its scope[136]; and by establishing a regulatory gateway for the approval of unauthorised persons' promotions.[137] This would enable the FCA to assess the suitability of a firm before it was permitted to approve the financial promotions of unauthorised person, and to proactively supervise the promotion approvals process. Meanwhile, the FCA is currently consulting on proposals to strengthen the financial promotion rules for high risk investments, including cryptoassets, and for authorised firms which approve and communicate financial promotions.[138] Separately, in July 2019, the FCA launched a consultation on proposals to prohibit the sale,

---

[133] The Chancellor of the Exchequer launched the Cryptoassets Taskforce in March 2018 <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/752070/cryptoassets_taskforce_final_report_final_web.pdf> accessed 21 September 2022.

[134] <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/902891/Cryptoasset_promotions_consultation.pdf> accessed 21 September 2022.

[135] <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/902891/Cryptoasset_promotions_consultation.pdf> accessed 21 September 2022.

[136] <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1047232/Cryptoasset_Financial_Promotions_Response.pdf> accessed 21 September 2022.

[137] <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1040979/Financial_Promotion_Exemptions_Con.pdf> accessed 21 September 2022.

[138] <https://www.fca.org.uk/publication/consultation/cp22-2.pdf> Accessed 21 September 2022.

marketing and distribution of derivatives and exchange traded notes (ETNs) that reference certain types of unregulated, transferable cryptoassets, i.e. crypto-derivatives, to all retail clients by firms in the UK.[139] Subsequently, in October 2020, the FCA announced the prohibition of the sale of crypto-derivatives[140] to retail clients.[141] The FCA considered that the information asymmetries faced by retail consumers when deciding whether to invest in these financial products were excessive. Moreover, retail consumers would be unable to assess the value and risks of these products reliably, and make informed investment decisions. The FCA's rules prohibiting the sale of crypto-derivatives to retail clients came into force in January 2021.[142]

3. AI IN FINANCIAL SERVICES

3.1. Future challenges for financial regulation

Financial technologies (Fintech) refer to the use of technologies to deliver financial services and products to consumers in the areas of banking, insurance or investments.[143] Fintech is 'a technologically enabled financial innovation' which gives rise to new business models, applications, processes and products, which could have a 'material effect on financial markets and institutions and the provision of financial services'.[144] Innovative start-up firms have joined large technology companies, which are disrupting traditional financial services such as mobile payments, insurance, investment advice, securities clearance and settlement, money transfers, loans, alternative fundraising platforms and asset management.[145] These technological disruptions are made possible by cross-cutting technologies such as data analytics, DLT or blockchain and cybersecurity.[146] There are clearly new opportunities for innovation and growth, which financial regulators are keen to promote and encourage. Fintech may assist in reducing costs and frictions, increasing efficiency and competition, narrowing information asymmetry,

[139] The FCA committed to consult in the Cryptoassets Taskforce's final report <https://www.fca.org.uk/publication/consultation/cp19-22.pdf> accessed 21 September 2022.

[140] These include cryptocurrency futures; cryptocurrency contracts for differences (CFDs); and cryptocurrency options.

[141] <https://www.fca.org.uk/publication/policy/ps20-10.pdf> accessed 21 September 2022.

[142] The prohibition was implemented through changes to the product intervention rules in Chapter 22 of the COBS and by the introduction of a new COBS 22.6 *Prohibition on the retail marketing, distribution and sale of cryptoasset derivatives and cryptoasset exchange traded notes*. COBS 22.6.5 bans the marketing, distribution and sale to retail clients of derivatives and exchange traded notes (ETNs) referencing certain types of cryptoassets.

[143] Jelena Madir, 'Introduction – What is Fintech?' in Jelena Madir (ed), *Fintech Law and Regulation* (Edward Elgar Publishing 2019).

[144] n 143 above.

[145] n 143 above.

[146] n 143 above.

and widening access to financial services, particularly in low-income countries, and for traditionally unbanked populations.[147] While this will have a disruptive effect on current business models, some have argued that this simply accelerates necessary reform which will make banking and financial markets more efficient, competitive, and innovative in the future. Moreover, although there may be some immediate employment loss, FinTech will create new opportunities, while at the same time bring improvements in educational and training standards. This could lead to improved growth, earnings, taxation receipts, and overall welfare and social benefits.[148]

By the same token, due to the fragmentation of function and dislocation of service delivery, Fintech will create new challenges. The emergence of new risks will create wider systems effects and exposures. A number of problems have been identified including technology risk, such as program error, model error, and connection error; complexity risk, as FinTech systems become more sophisticated and comprehensive; network risk, which is caused by the increasingly complex nature of connections between separate systems and platforms in larger extended chained arrangements; systems contagion and emergence risk, due to the high degree of interconnection and transmission speeds and the nascent nature of Fintech systems; and supervisory omission risk, where regulatory authorities have inadequate powers and tools necessary to identify and respond to new risks and exposures.[149] Indeed, financial regulators are confronted with having to apply laws which are several decades old, and, in many instances, built on the assumptions now being challenged by technology.[150] Moreover, financial regulators are genuinely concerned about the potential risks posed to the stability and resilience of the financial system. For example, the next global financial crisis may result from IT contagion, due to outsourcing and overreliance upon shadow infrastructure such as DLT, cloud computing, data analytics, and other AI functions. As a result, financial institutions may become overly connected by shared technologies, software use and common third-party vendors.[151] There are also concerns relating to the level of consumer protection. For example, AI may make unpredictable decisions, and may be biased where underlying data is skewed causing harm to consumers.[152] Secondly, virtual, digital and crypto-currencies provide a flexible opportunity for investment in a new asset class. However, as discussed earlier, they are also complex, volatile, prone to fraudulent activity

[147] n 143 above.

[148] George Walker, 'Financial Technology Law - A New Beginning and a New Future' (2017) 50 1 International Lawyer 137.

[149] n 148 above.

[150] n 143 above.

[151] Peter Chapman, 'When law and technology intertwine: six fintech trends' (2018) 3 JIBFL 186.

[152] n 151 above.

and potentially high-risk for consumers.[153] There are also possible issues with the clarity and consistency of regulatory and legal frameworks, the adequacy of existing financial safety nets, such as depositor protection, and the potential threat to financial integrity.[154]

4. THE PHILOSOPHY OF FINANCIAL REGULATION

4.1. The purpose of the financial system

The financial system, which is the concern of financial regulation, is surprisingly hard to encapsulate.[155] Moreover, the purpose of the financial system continues to focus the minds of both academics and policy makers.[156] In essence, the financial system is concerned with financial intermediation, or the process through which money is transferred from those in surplus to those in deficit, and where returns or profits are earned in proportion to the risks taken. The banking system manages intermediation through loan asset maturity transformation. This involves the provision of long-term loan assets to those seeking capital, which is based on short-term bank deposit liabilities that provide returns for banks. The financial markets intermediate through the raising of money by those needing capital through financial instruments, such as shares and bonds, which provide returns for financial institutions. The financial system engages a whole range of market intermediaries and infrastructures, which enable and support this purpose. In general, the financial system enables the raising of capital and the earning of returns through multiple interconnected mechanisms which help to manage the costs of financial intermediation. In particular, it allows providers of capital to hedge their risks, and those who need capital to reduce their cost of capital. In addition, it provides for liquidity in loan and security assets, and facilitates the realisation of assets for those who provide capital whom, as a result, are able to fund those in need of capital.

---

[153] n 151 above.

[154] For a more detailed overview of the risks and opportunities of Fintech, see: George Walker, 'Financial Technology Law - A New Beginning and a New Future' (2017) 50 1 International Lawyer 137. It should be noted that the assessment of these risks by the UK and by international standard setters such as the Bank for International Settlements (BIS), Financial Stability Board (FSB), International Monetary Fund (IMF), and International Organization of Securities Commissions (IOSCO) appears broadly aligned. For example see: 'IOSCO Research Report on Financial Technologies (Fintech), Report of the Board of IOSCO' (February 2017) <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD554.pdf> accessed 17 February 2023; and 'Powering the Digital Economy: Opportunities and Risks of Artificial Intelligence in Finance, International Monetary Fund (October 2021) <https://www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2021/10/21/Powering-the-Digital-Economy-Opportunities-and-Risks-of-Artificial-Intelligence-in-Finance-494717> accessed 17 February 2023.

[155] n 32 above.

[156] n 32 above.

However, the financial system is dynamic, and is evolving continuously. The intermediation process is prone to innovation and has tended towards becoming all the more complex. For example, the process of 'financialization', or the embedding of the financial system within the economy, has led to domestic households becoming increasingly dependent upon returns from the financial system, and exposed to the risks of the financial system through a variety of complex financial products and evolving distribution systems.[157] Secondly, innovation within the financial system has led to increasingly sophisticated approaches to managing and dispersing risks through complex multiple layers of intermediation. As the financial system has become more sophisticated, the process of intermediation has become detached from its core capital supply function, and increasingly focused on the generation of profits, fees and returns through various forms of financial alchemy.[158] This has led to a severing of the relationship between risk and return, and has distorted the financial system's ability to manage risk.[159] As a result, the social purpose of the financial system has come under scrutiny. Robert Shiller argues that the better aligned a society's financial institutions are with its goals and values, the stronger and more successful the society will be. If the mechanisms of finance function properly it has a unique opportunity to promote greater social prosperity.[160] Therefore, it is argued that the financial system provides the architecture for the financing of our social goals, and the stewardship of assets for the achievement of such goals. Similarly, David Rouch reminds us of the 'social licence for financial markets' and the fundamental relationship between finance and society.[161] The social licence focuses upon social purpose and justice as the ultimate ends of the financial markets. For example, making finance available to serve the needs of the real economy, supporting SMEs, and addressing wider concerns such as the environment and sustainability.[162]

4.2. The rationale for financial regulation

The traditional neoclassical economics analysis of regulation provides for the correction of various market imperfections and failures. Information asymmetries and externalities have long

[157] n 32 above.

[158] Mervyn A King, *The end of alchemy: Money, banking, and the future of the global economy* (Little, Brown Book Group 2016)

[159] n 32 above.

[160] Robert J Shiller, *Finance and The Good Society* (Princeton University Press 2013).

[161] David Rouch, 'The social licence for financial markets, written standards and aspiration' in Russo C, Lastra R, Blair W (eds), *Research handbook on law and ethics in banking and finance* (Edward Elgar Publishing 2019). David Rouch, *The Social Licence for Financial Markets, Reaching for the End and Why it Counts* (Palgrave Macmillan 2019).

[162] n 161 above.

been identified as classic market failures, given the extent to which counterparties in the financial system are interrelated, and the scale of the risks being transmitted.[163] These market imperfections and failures in the absence of financial regulation, might produce 'sub-optimal results and reduce consumer welfare'.[164] In other words, the purpose of financial regulation is restricted to correcting market imperfections and failures, which disrupt the efficient allocation of resources,[165] but may also lead to disruption to the overall efficient operation of the financial system, where risks and costs are not efficiently internalised within financial institutions[166], but are externalised into the wider financial system which may generate stability risks, and lead to large-scale damage to the real economy.[167] Indeed, this is what transpired following the global financial crisis.

The cycle of financial system expansion, crisis, and regulatory response has become a familiar process. Indeed, financial regulation is normally imposed in response to some prior crisis, rather than premised on any theoretical principle.[168] It is an 'a-theoretical' pragmatic response by governments and regulators to immediate problems.[169] For example, in the 1970s when the Basel Committee on Banking Supervision (BCBS) was established to manage some of the emerging problems of global banking and finance, their approach was to hold a roundtable discussion of all the current practices in the member states, and seek an agreement or harmonisation of the most appropriate practices. Indeed, little, or no attempt was made to return to first principles, or question whether there was a need for banking regulation, whether domestic or cross-border, in the first place.[170] Moreover, the conventional rationale for regulation fails to do justice to the many complexities of the financial system, institutional incentives, changing political priorities, and policy choices which influence financial regulation.[171] Therefore, the purpose of financial regulation has become highly contested.[172]

---

[163] n 32 above.

[164] n 32 above.

[165] n 32 above.

[166] Markus K Brunnermeier and others 'The fundamental principles of financial regulation' (2009) Geneva Reports on the World Economy, International Center for Monetary and Banking Studies <https://www.princeton.edu/~markus/research/papers/Geneva11.pdf> accessed 21 September 2022.

[167] n 32 above.

[168] Charles Goodhart, 'How Should We Regulate the Financial Sector?', in Adair Turner and others (eds) '*The Future of Finance and the Theory that Underpins It*' (LSE Report, 2010).

[169] n 168 above.

[170] n 168 above.

[171] n 32 above.

[172] n 32 above.

4.3. The objectives of financial regulation

The three core objectives of financial regulation are (a) to support systemic stability; (b) market efficiency, transparency, and integrity; and (c) consumer protection.[173] A fourth objective is altering the behaviour of regulated institutions. This may be achieved by way of externally imposed, prescriptive and detailed rules, or through creating incentives for appropriate behaviour.[174] The underlying concerns of regulation are to ensure that the financial system supports economic growth and, in light of the taxpayer bail-outs which followed the global financial crisis, to ensure that taxpayers' money is not put at risk. The regulatory tools to deliver these objectives may be classified broadly into conduct-related and prudential-related measures.[175] Conduct regulation is concerned with customer and market-facing conduct. It addresses the protection of consumers when financial or investment advice is provided, and concerns the risks that conduct might amount to market abuse, such as insider trading or market manipulation, and the promotion of market efficiency by ensuring that firms seeking to raise capital do not defraud the market.[176] The FCA, as the UK's conduct regulator, seeks to ensure that regulated firms observe conduct regulation in the treatment of their customers. However, this does not mean that consumers will always be protected against the possibility of financial loss. Indeed, the FCA must observe the philosophy of freedom of contract, i.e. that all parties to a contract have the freedom to create whatever bargain they wish, provided that one party is not taking unconscionable advantage of the other. Indeed, section 1C(2)(d) *The consumer protection objective* FSMA 2000 provides that all consumers are ultimately responsible for their own decisions. Therefore, the principle of caveat emptor is pervasive in financial regulation. Prudential regulation is generally concerned with financial stability, and consists of micro-prudential and macro-prudential regulation. The objective of micro-prudential regulation is to ensure that individual institutions act prudently, therefore focusing on the stability of individual firms, whereas macro-prudential regulation is designed to safeguard the system as a whole. Micro-prudential measures include rules on authorisations, capital, solvency, liquidity and leverage requirements, corporate governance, remuneration, risk management, deposit guarantees, and rescue and resolution procedures.[177] An important aspect of macro-prudential

[173] David Llewellyn explains that the objectives of financial regulation are more limited than consumers and the media often assume. David T Llewellyn, The Economic Rationale of Financial Regulation, FSA Occasional Paper No. 1, London, Financial Services Authority (1999).

[174] n 173 above.

[175] n 32 above.

[176] n 32 above.

[177] n 32 above.

regulation is that regulators have at their disposal a set of measures which target the sources of systemic risk and promote the stability of the financial system.

4.4. Ethical challenges to economic assumptions of financial regulation

If the purpose of financial regulation is to correct market imperfections and failures, i.e. information asymmetries and externalities to allow for the efficient allocation of resources and improve consumer welfare, then it is arguably ethical. Joseph Heath advances an ethical theory based upon macro-economics, which he terms a 'market failure' or 'Paretian' approach.[178] This provides that the market is a staged competition, designed to promote Pareto efficiency. In addition, where the explicit rules governing the competition are not sufficient to secure favoured outcomes, economic actors should respect the spirit of these rules and refrain from pursuing strategies that run contrary to competition.[179] Moreover, the markets are special-purpose institutions designed to promote efficiency, embedded within the broader context of a welfare state, which engages in both market-complementing and redistributive policies.[180] Therefore, in addition to regulation, individuals and companies should follow ethical imperatives such as (a) minimise negative externalities; (b) reduce information asymmetries; (c) not exploit diffusion of ownership; (d) avoid setting up barriers to entry; (e) not oppose regulation which seeks to correct market imperfections; (f) not seek tariffs or other protectionist measures; and (g) not engage in opportunistic behaviour.[181] While these ethical imperatives will be familiar to traditional ethical theorists, they are not founded in everyday morality, such as rights and duties, concepts of fairness, the greatest happiness principle, social justice claims, or Kant's Categorical Imperative.[182] Moreover, the source of these ethical imperatives derives from the pursuit of market efficiency. The market will work most efficiently when we prevent market failures, and market failures happen because of imperfections, asymmetries, and externalities.

This theory, similar to the pure economic theory, may be challenged on the basis of its assumptions. The assumptions are that in a perfectly competitive market, all agents are rational

[178] Joseph Heath, *Morality, Competition, and the Firm: The Market Failures Approach to Business Ethics* (OUP 2014).
[179] n 178 above.
[180] n 178 above.
[181] Andrew Gustafson, review of 'Morality, Competition, and the Firm: The Market Failures Approach to Business Ethics', Notre Dame Philosophical Reviews <https://ndpr.nd.edu/reviews/morality-competition-and-the-firm-the-market-failures-approach-to-business-ethics/> accessed 21 September 2022.
[182] These will be discussed in Chapter 2 *Ethics*.

and self-interested, and all exchanges are mutually beneficial, or a Pareto improvement.[183] Therefore, we have no need for mutually beneficial principles of action, or rational morality.[184] Secondly, out of self-interest, the actors will fulfil their obligations and will not renege their contracts if more advantageous options come to light than those already contractually agreed.[185] Thirdly, asymmetries of information make no significant difference, or can be overcome by market participants. Fourthly, the expansion of the market will diminish, rather than magnify the divergence of the manager's self-interest from corporate interests, and between corporate and customer interests, through the greater competitive pressure of the enlarged market.[186] Finally, the increasing commercialisation and shareholder-value orientation of financial institutions, together with the dismantling of their traditions and their norms as a profession, will not reduce but actually increase the rationality of the financial sector, because archaic traditions and profession-specific norms will be superseded by the competitive pressures of globalised finance.[187] The challenges to these assumptions will be discussed in Chapter 2 *Ethics*. However, for our purposes, there is a more fundamental question. If the market-efficiency theory postulates that the ultimate purpose of well-functioning markets is the improvement of consumer welfare, then it is a consequentialist ethical theory, whereby morality is determined by consequences. Moreover, the market-efficiency theory, which is based in Paretian social welfare, is utilitarian, in that it seeks to provide the greatest pleasure or happiness for the greatest number of people.[188] However, there are a number of problems with the utilitarian approach. For example, it isn't clear how we should determine which situation contributes most to the common good, and how gains should be distributed in society. Furthermore, everyday morality, such as rights and duties, concepts of justice and fairness are considered only as part of the pursuit of market efficiency. Indeed, it is argued that when financial regulation focuses upon correcting market imperfections and failures, the process of compliance is shifted away from ethics-based approaches, because risk-based regulation is superimposed on ethical judgement, and, in some instances, it may sanction unethical conduct.[189] These ethical challenges will be explored further in Chapter 2 *Ethics*.

[183] A Pareto improvement is an improvement to a system when a change in allocation of goods harms no one and benefits at least one person <https://www.investopedia.com/terms/p/paretoimprovement.asp> accessed 21 September 2022.

[184] Amartya Sen, 'Economics and Ethics' in Christopher Morris (ed), *Contemporary Philosophy in Focus* (Cambridge University Press 2010).

[185] Peter Koslowski, *The Ethics of Banking, Conclusions from the Financial Crisis* (Deborah Shannon tr, Springer 2012).

[186] n 185 above.

[187] n 185 above.

[188] Joseph Heath, *Morality, Competition, and the Firm: The Market Failures Approach to Business Ethics* (OUP 2014).

[189] Iain MacNeil, 'Rethinking conduct regulation', (2015) 7 Journal of International Banking and Financial Law 413.

CHAPTER TWO

ETHICS

1. INTRODUCTION

1.1. A brief history of ethics

Ethics as an academic discipline is one of the main fields of classical philosophy, together with epistemology[190], metaphysics[191], politics[192], and aesthetics.[193] In Western civilisation, ethics begins with the eminent inquiry of Ancient Greek philosophers Socrates, Plato and Aristotle, 'how should we live?' They resolved that humans should seek 'eudaimonia' or 'the human good'.[194] 'Eudaimonia' broadly translates from Greek to mean 'flourishing' or a 'well-lived life'.[195] In 'The Nicomachean Ethics', Aristotle explains that those who exercise their reason and cultivate it will be the happiest,[196] and happiness is the best, noblest, and most pleasant thing in the world.[197] The means to achieve happiness is through excellence or virtue.[198] For the Ancient Greek philosophers, a virtuous agent is one who possesses virtues, such as courage, temperance, prudence, justice and generosity. Therefore, whether an act is right will depend upon the character of the agent who performs the act. Moreover, the person who possesses virtue and performs the right acts does so for the purpose[199] of seeking 'eudaimonia', which is based upon universal human nature.[200]

In the European Middle Ages, St. Thomas Aquinas and the scholastics developed a Christianised version of Aristotelian virtue ethics. This involved a synthesis of the belief in an eternal Creator-

---

[190] The study of knowledge, i.e. what and how do we know.

[191] The study of the nature of being, cause and effect.

[192] The study of how we should govern ourselves.

[193] The study of the nature of beauty.

[194] Aristotle asks what is the highest of all goods achievable by action? His conclusion is 'εὐδαιμονία' or 'eudaimonia'. Aristotle, *The Nicomachean Ethics,* 1.4 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[195] For Aristotle, happiness did not mean a mental state or a state of subjective well-being.

[196] Aristotle, *The Nicomachean Ethics*, 10.8, 1179a30 (David Ross, tr, Lesley Brown, ed, OUP 2009)

[197] Aristotle, The Nicomachean Ethics, 1.8, 1099a25 (David Ross, tr, Lesley Brown, ed, OUP 2009)

[198] Virtue is translated from the Greek word 'ἀρετή' or the romanised 'areté'.

[199] Purpose is translated from the Greek word 'τέλος' or the romanised 'telos'. 'Τέλος' or 'telos' may be defined as an end, aim, goal, purpose of activity, or complete, final state of affairs, 'that for the sake of which something is done. Aristotle, *Physics*, 2.3, 194b33 (Robin Waterfield and David Bostock, eds, OUP 2020).

[200] Aristotle is commonly considered to have made a seminal contribution to natural law thinking. Frederick Copleston, *A History of Philosophy*, (Search Press 1946).

God, the authority of God's revealed law, and human reason.[201] Aquinas argued that revealed law could be substantiated through dialectical reason.[202] Previously, faith-based natural law theory posited God and His revealed law as authoritative, which was beyond rational proofs.[203] In his work Summa Theologica, Aquinas adopted Aristotle's theory that everything should fulfil its natural end or purpose[204], and that by fulfilling our purpose we achieve the supreme good. However in departing from Aristotle, Aquinas argued that it is God who gives purpose, and instils in humanity a comprehensive view of what is natural and right.[205] According to Aquinas, human reason endowed by God is the starting point for ethical consideration. However, through the use of reason we may arrive at moral truths which are identical to those provided through God's revelation.[206] While Aquinas' Summa Theologica dominates Catholic theology, given that his natural law theory is based on human reason, it may be regarded as universal, and, in principle, may be discovered by all human beings.[207]

For several centuries in Europe, ethical reflection on the highest good of humanity continued to be termed in religious doctrine, until the European Enlightenment period of the eighteenth century. This followed the scientific revolution in the sixteenth and seventeenth centuries which was manifest by a fervent desire for intellectual and scientific progress, and the improvement of human society and individual lives.[208] There was also the desire to discern and advocate a secular, rational or natural religion, distilled of superstition, fanaticism and supernaturalism.[209] Indeed, many of the issues and positions of contemporary ethics find their origins in the Enlightenment period. The most influential moral philosophers at that time were Thomas Hobbes, David Hume, Adam Smith, Jeremy Bentham, John Stuart Mill and Immanuel Kant.

Thomas Hobbes introduced the social contract theory, in which political authority is grounded in the rational consent of the governed. He took a naturalistic, scientific approach to the question of how political society ought to be organised against the background of an unsentimental

---

[201] Aquinas was condemned for propagating his theory, until he was canonised, less than 100 years after his death.

[202] Eric Heinze, 'The meta-ethics of law: Book One of Aristotle's Nicomachean Ethics' (2010) 6 International Journal of Law in Context 23.

[203] n 202 above.

[204] 'Τέλος' in Greek or 'finis' in Latin.

[205] Thomas Aquinas, *Summa Theologica*, Part 1, Question 2, Article 3, Objection 2.

[206] David McIlroy, *The End of Law, How Law's Claims Relate to Law's Aims* (Edward Elgar Publishing 2019).

[207] Kara Tan Bhala, 'The philosophical foundations of financial ethics' in Russo C, Lastra R, Blair W (eds), *Research handbook on law and ethics in banking and finance* (Edward Elgar Publishing Limited 2019).

[208] William Bristow, 'Enlightenment' (2017) The Stanford Encyclopedia of Philosophy, Edward N. Zalta (ed) <https://plato.stanford.edu/archives/fall2017/entries/enlightenment/> accessed 21 September 2022.

[209] n 208 above.

conception of human nature.[210] He considered that ethics should also be based on a contractual agreement between people. Meanwhile, David Hume's ethics were based on an empirically grounded science of human nature, free of any theological presuppositions. Therefore, when we inquire about human nature, since we are asking a question of fact, not of abstract science, we must rely on experience and observation.[211] David Hume's ethics were based on sentiment rather than reason. In his opinion, human beings were able to have a natural sympathy for others.[212] Similar to David Hume, Adam Smith considered sympathy to be one of the most important principles in human nature, and the greatest restraint upon the injustice of mankind, which guards and protects society.[213]

Jeremy Bentham established modern utilitarian theory, which holds that the consequences of an action are determinative when deciding whether an act is ethical. John Stuart Mill refined the theory to distinguish between higher and lower qualities of well-being. For example, he considered that moral and intellectual pleasures should rank higher than sensual pleasures. Immanuel Kant, in his Critique of Pure Reason, opposed David Hume's sentimentalist ethics and argued that fundamental ethical principles can be based on *a priori* knowledge only or reason.[214] Immanuel Kant developed a great moral system centred upon rational humanity, which sits at the pinnacle of the Enlightenment period.

1.2. Ethics and morality

Etymologically, the term 'ethics' is synonymous with the terms 'morals' and 'morality'. While 'ethics' is derived from the Greek word 'ethos', 'morals' or 'morality' derive from the Roman word 'mores'. Both 'ethos' and 'mores' mean a manner of behaving, to the mores specific to each human individual and society. This is the idea that nothing which involves human activities should escape undergoing reflection, or, an ethical process.[215] When used in a normative sense, both 'morality' and 'ethics' have the same practical meaning.[216] This is because both ethics and

[210] Thomas Hobbes, *Leviathan* (first published 1651, Penguin 2007)

[211] David Hume, *An Enquiry concerning the Principles of Morals*, (Tom L Beauchamp ed, OUP 1998).

[212] David Hume is therefore regarded as a moral sentimentalist.

[213] Adam Smith, *The Theory of Moral Sentiments*, (R P Hanley ed, Penguin 2009).

[214] For concepts and principles to be *a priori*, they must be inherent in reason, and revealed through its operation, rather than derived from experience or observation, i.e. empirical knowledge, and irrespective of heteronomous considerations.

[215] Jacques Arnould, 'Ethics Handbook for the Space Odyssey', (Yanette Shalter tr, ATF (Australia) Ltd 2019) <https://www.jstor.org/stable/j.ctv1j666bw.5> accessed 21 September 2022.

[216] Bernard Gert and Joshua Gert, 'The Definition of Morality', The Stanford Encyclopaedia of Philosophy (2020), Edward N. Zalta (ed) <https://plato.stanford.edu/archives/fall2020/entries/morality-definition/> accessed 21 September 2022.

morality involve critical reflection, and an ethical process which is dynamic or progressive.[217] Moreover, normative ethics lead us to both positive and negative rules.[218] However, while in modern Western philosophical vernacular the terms 'ethics', 'morals' and 'morality' may be used interchangeably[219], several moral philosophers have drawn a distinction between ethics and morality. For example, Bernard Williams refers to *ethics* as the attempt to answer the broader philosophical questions such as, 'how should we live?'[220] Whereas he refers to *morality* as embodied in the rules, laws or codes of conduct promulgated by institutions or accepted in the prevailing norms of modern Western culture.[221] Similarly, Peter Singer argues that ethics is *not* a series of only prohibitions, it is *not* a wonderful theory that is impractical in practice, it is *not* dependent on and determined by religion, and – finally – ethics certainly *does not* have to be relative or subjective.[222] Moreover, ethics is a view on how to act well that remains intact in a discussion with others who have different insights and critical conceptions. Therefore, self-centred action must always comply with public interest or – at minimum – with interests that transcends the individual interest. Secondly, ethical judgements must always surpass the 'I' and 'you', which gives it a universal and objective character.[223] For these reasons, ethics is inevitable and crucial for the whole of humankind.[224] In summary, we may distinguish between a broader conception of 'the ethical', and the narrower concerns of what may be called the system of 'morality', which focuses particularly on ideas of personal obligation.[225] This distinction helps to elucidate that while morality is oriented to an individual's personal beliefs or morals, ethics relates to the collective set of morals or values of a society or a specific class of people in society.[226]

1.3. Theories of morality

---

[217] n 216 above.

[218] John Hendry *Ethics and Finance: An Introduction* (Cambridge University Press 2013).

[219] Most philosophers alternate between 'ethics' and 'morality' seamlessly.

[220] Richard Norman, *The Moral Philosophers: An Introduction to Ethics* (2nd edn, OUP 1998). Bernard Williams, *Morality: An Introduction to Ethics* (Cambridge University Press 2012).

[221] High-Level Expert Group on Artificial Intelligence, Ethics Guidelines for Trustworthy AI <https://op.europa.eu/en/publication-detail/-/publication/d3988569-0434-11ea-8c1f-01aa75ed71a1> accessed 21 September 2022.

[222] Peter Singer, *Writings on an Ethical Life* (Fourth Estate 2001).

[223] n 222 above.

[224] Aloy Soppe, *New Financial Ethics: A Normative Approach* (Routledge 2017).

[225] Bernard Williams, *Morality: An Introduction to Ethics* (Cambridge University Press 2012).

[226] Tabetha Hazels, 'Ethics and Morality: What Should Be Taught in Business Law?' (2015) 19(2) Academy of Educational Leadership Journal 77.

There are broadly four theories of morality. Those are moral objectivism; moral pluralism; moral subjectivism; and moral relativism. Moral objectivism provides that there is an objective set of moral principles which should be complied with always. Moral pluralism holds that there may be more than one rule that applies to a scenario, and there is no set principle on choosing which applies to a scenario. Moral subjectivism focuses on what the individual considers is right or wrong. Moral relativism provides that right and wrong are determined by the set of principles or rules that are espoused by a culture at any given time. The rightness or wrongness of actions ultimately depends on the moral code of the culture to which one belongs. If two cultures have two different moral codes, then an act may be acceptable in one culture, however not in the other. The principal question in the debate between moral objectivists and moral subjectivists is whether we desire something because it is good, or something is good because we desire it? Moral objectivists claim that we desire things because they are good. Therefore, things are good or bad independently of our subjective mental states. Meanwhile moral subjectivists consider that things are good because we desire them. Therefore, whether things are good or bad depends on our subjective mental states. A related focal question concerns disagreements over values and how these disagreements are to be justified. For example, moral relativists account for moral disagreement by claiming that something might be good for one person, however not good for another person.[227] Unlike ethical theories, which we will consider below, moral theories are not generally associated with any particular moral philosopher.[228] However, it is suggested that ethical theories may themselves be described as objective, pluralist, subjective or relativist theories.[229] For example, deontology is an objective theory, because according to this ethical theory, some acts will be always wrong. Meanwhile, utilitarianism is a relativist theory, because it proposes that an action is right only if it conforms to the principle of utility. This means that its performance will be more productive of pleasure, happiness or the common good, or more preventative of pain or unhappiness than any alternative. Furthermore, non-teleological virtue ethics is both a subjective and relativist theory, because it relates to the judgements and actions of individuals at any given time or location.

1.4. Morality and the law

The relationship between law and morality is the subject of continuing debate in legal philosophy. Natural law theory broadly posits that the concept of law necessarily implies a set of *a priori*

[227] Ellen Frankel Paul, Fred D Miller Jr. and Jeffrey Paul (eds) *Objectivism, Subjectivism, and Relativism in Ethics* (Cambridge University Press 2008).

[228] n 227 above.

[229] Note however that, as Singer argues, ethics need not be relative or subjective.

moral principles, such as fairness, justice or equality. Moreover, a legal system that fails to embody such *a priori* moral principles cannot be recognised as a legal system. Legal positivism contrasts with natural law theory. It is best understood as an empirical, descriptive and morally neutral theory about the nature of jurisprudence. One of the most influential academics in modern legal philosophy, HLA Hart, argued that while there may be necessary relations between law and morality, it does not *necessarily* follow that *all* laws reproduce or satisfy sound moral standards.[230] Therefore, the law need not reflect the moral values endorsed by the population it governs. There may be legal rights and duties which have no moral justification. Indeed, morally iniquitous provisions may be valid as legal rules or principles. HLA Hart's position is referred to as 'inclusive legal positivism'. It does not purport to justify any aspect of its subject matter, nor is it committed to any particular moral or political evaluations.[231] However, it is an 'inclusive' theory in that it accepts that the sources of law *may* include principles of ideal morality.[232] Indeed, HLA Hart explains 'it cannot seriously be disputed that the development of law has in fact been profoundly influenced both by the conventional morality, and ideals of particular social groups, and also by forms of enlightened moral criticism urged by individuals, whose moral horizon has transcended the morality currently accepted'.[233] Furthermore, the influences of morality enter into law through legislation, or silently and piecemeal through judge-made law. Early proponents of the legal positivist theory were utilitarian philosophers Jeremy Bentham and John Austin. They insisted on the need to distinguish law as it *is* from law as it *ought to be*.[234] Bentham and Austin were the vanguard of a movement which sought to bring about a better society and laws.[235] This insistence on separability enabled the public to see the problems posed by the existence of morally bad laws, to criticise and censure governments, and to seek appropriate legal reform.[236] Moreover, the distinction between law and morals helped to steer the public from the danger that law and its authority is translated to the public's conceptions of what the law *ought to be*, and that the existing law may usurp morality as the barometer of conduct, and therefore escape reproach.[237] The thesis acknowledges that the relationship between law and morality is subject to

[230] HLA Hart, *The Concept of Law* (3rd edn, Clarendon Press 2012). HLA Hart, 'Positivism and the Separation of Law and Morals' (1958) 71 Harvard Law Review 593, at 601 n 25.

[231] Andrei Marmor, *Law in the age of pluralism* (OUP 2007).

[232] This is as opposed to 'exclusive legal positivism', which holds that the sources of law cannot include principles of ideal morality.

[233] n 230 above.

[234] HLA Hart, 'Positivism and the Separation of Law and Morals' (1958) 71 Harvard Law Review 593.

[235] n 234 above.

[236] n 234 above.

[237] n 234 above.

debate in legal philosophy. However, for the purposes of this inquiry, it draws on inclusive legal positivism.

1.5. Typology of ethics

An academic typology of ethics provides four subcategories of ethics as follows: meta-ethics; descriptive ethics; applied ethics; and normative ethics.[238] Meta-ethics is a branch of analytical philosophy that concerns arguments about the meaning of ethical concepts, judgements and arguments. For example, questions about the meaning of moral terms such as 'good', 'ought' and 'right'. It also considers the conditions of validity of moral arguments, whether there are moral facts, whether there is such a thing as moral knowledge, and if so, what are its scope and limits.[239] In the Anglo-Saxon tradition, meta-ethics has dominated ethical discourse for much of the twentieth century. One of the reasons for the development of meta-ethics is the notion that moral philosophy may not establish correct theories about how a person should live or act. There is no correct view because beliefs about such matters cannot properly be said to be true or false. Societies and cultures differ from each other in terms of what they consider to be good or right.[240] While meta-ethics has proven stimulating to academic philosophers, it has done little to assist society with resolving practical ethical problems. As a result, meta-ethics and philosophy have been marginalised due to their perceived irrelevance to society.[241] Descriptive ethics aims at an empirical investigation of a person's moral choices and values in a particular society.[242] This subcategory of ethics does not involve an examination of right or wrong. Therefore, descriptive ethics does not assist society with resolving practical ethical problems. Applied ethics relates to the moral fitness of a decision or course of action and what we are obliged or permitted to do in a specific situation or a particular set of possibilities.[243] Applied ethics deals with real-life situations where decisions have to be made under time-pressure, and often with limited rationality.[244] The established areas of applied ethics include medical ethics, environmental ethics

[238] n 207 above.

[239] Thomas Mautner (ed), *The Penguin Dictionary of Philosophy* (2nd edn, Penguin 2005).

[240] n 207 above.

[241] n 207 above.

[242] High-Level Expert Group on Artificial Intelligence, Ethics Guidelines for Trustworthy AI <https://op.europa.eu/en/publication-detail/-/publication/d3988569-0434-11ea-8c1f-01aa75ed71a1> accessed 21 September 2022.

[243] n 242 above.

[244] n 218 above.

and legal ethics. The more contemporary areas include financial ethics[245] and AI ethics.[246] In the last thirty years, there has been a revival of interest in applied ethics by academics, who have been re-examining social contract theories, virtue ethics and other earlier ethical arguments.[247] Normative ethics is concerned with how we ought to live and behave, and what kind of actions are good and bad, or right and wrong in respect of character, conduct and consequences.[248] It aims to develop rules, principles and guidelines, grounded in rational argument to help us distinguish good from bad and right from wrong in our actions towards others in society. Normative ethics is comprised of a number of ethical theories and sub-theories which seek to assist us in choosing the right course of action, and solve modern-day problems.[249] Broadly speaking, normative ethical theories provide a useful framework for progressive ethical practice. They help to explain and justify a chosen act that is deemed ethically right. They also allow us to practise and refine our moral reasoning. As we become proficient at ethical reasoning, we are able to participate in corporate or public policy discussions in an intelligent way, with some knowledge of how to present and evaluate ethical arguments.[250]

1.6. A framework for the practice of ethics

In contemporary terms, ethics means 'doing the right thing', or more formally, the effort to guide one's conduct by reason, giving equal weight to the interests of each individual affected by one's decisions.[251] Ethics has three broad components.[252] Firstly, it is concerned with conduct by both individuals and organisations. On this basis, ethics involves doing what is right and not doing wrong, fulfilling one's obligations or duties, respecting people's rights, acting fairly or justly, and treating others with dignity. Secondly, ethics relates to who we are, our character and our virtues. Thirdly, ethics deals with the evaluation and justification of practices, states of affairs, institutions, and systems. For example, we may ask ourselves whether insider trading is wrong; whether income inequality is fair; whether corporations should seek shareholder value only, or indeed whether free-market capitalism is the best economic system. Based upon what ethics seeks to achieve, i.e. prescribing, evaluating and justifying, the language of ethics is rich and varied.

---

[245] Kara Tan Bhala observes that it is surprising that finance as a long and well-established undertaking should only recently have an association with ethics. n 207 above.

[246] AI ethics focuses on the normative issues raised by the design, development, implementation and use of AI. n 234 above.

[247] n 207 above.

[248] n 218 above.

[249] George Möller, *Banking on Ethics: Today's perception is tomorrow's norm*. (Euromoney Books 2012).

[250] Richard T. De George, *Business Ethics* (6th edn, Pearson Prentice Hall 2006).

[251] James Rachels and Stuart Rachels, *The Elements of Moral Philosophy* (7th edn, McGraw Hill 2012).

[252] John R. Boatright, *Ethics in Finance*, (3rd edn, Wiley-Blackwell 2014)

The whole of ethics can be understood by means of six concepts, which provide a useful framework for the practice of ethics.[253] Those are welfare; duty; rights; justice; honesty; and dignity.[254] Primarily, we generally consider that it is a matter of ethics to promote human welfare, and avoid inflicting harm on others and to relieve suffering. Therefore, whenever a course of action or state of affairs bears on human welfare, we should be alerted to potential ethical issues.[255] For example, we might assess whether anyone is being harmed, and if so, whether the harm can be justified. Secondly, much of ethics concerns the duty or obligation of a person to act in a certain way. Where in a situation it is appropriate to evaluate what a person ought to do or what is the right thing to do, ethics will be involved in determining the appropriate duty or obligation. Thirdly, the concept of rights is prominent in ethics. For example, human rights, employee rights, customer rights, consumer rights and shareholder rights, which are generally conferred by statute or by agreement. For example, parties to a loan agreement may agree that the borrower should repay a loan by a given time. Therefore, the lender's right to have a loan repaid correlates to the borrower's duty to repay a loan. The ethical question we might consider is whether a person's rights are being violated, and if so, whether this is justifiable. For example, we might assess when it would be justifiable to violate the lender's right to have its loan repaid by a given time. By correlation, we might examine the circumstances in which a borrower would be justified in not performing their duty to repay a loan.[256] Fourthly, the concepts of fairness and justice are relevant to matters of ethics. The actions of individuals may be evaluated for fairness and justice, however these concepts may also be used to evaluate general practices and institutional arrangements, such as the remuneration of high level executives, the justice of the tax system or the current economic system. The ethical question to deliberate is whether everyone is being treated fairly or justly. Fifthly, being honest is important in developing relationships of trust which is a basic ethical requirement in most spheres of life. We may therefore consider whether we are being entirely honest in our actions. Finally, the concept of dignity expresses the fundamental moral requirement that all people are treated with respect as human beings, and that they should be recognised as autonomous moral agents with the freedom to pursue their own ends. Boatright argues that this autonomy is violated when people are subjected to humiliation,

---

[253] n 252 above.

[254] n 252 above.

[255] n 252 above.

[256] A good example of correlating rights and duties as regards the repayment of debt may be found in the Holy Quran. Verse 2:280, states: '*If the debtor is in a difficulty, grant him time till it is easy for him to repay. But if ye remit it by way of charity, that is best for you if ye only knew*. Verse 2: 283 then states: '*If you are on a journey and a scribe cannot be found, then a security can be taken. If you trust one another, then there is no need for a security, but the debtor should honour this trust by repaying the debt—and let them fear Allah, their Lord*' (Emphasis added).

violence, coercion, degradation, or enslavement. However, other less serious violations of a person's dignity occur when they are treated as a means to our own ends.[257] Therefore, the ethical question to be probed is whether we are showing respect for all persons.

The practice of ethics has three components: an ethical agent; the process of reasoning; and some form of action. The ethical agent could be a natural or artificial legal person, such as an individual or a corporation.[258] The characteristic presumed in agency is freedom.[259] We must have free will to choose to act ethically. If we do not act freely, our actions are neither blameworthy or praiseworthy, because we are not responsible for our actions. Secondly, our ethical judgements must be based on sound reasoning. For example, it may be unwise to allow emotions to guide our actions, as they may be irrational, prejudicial or culturally conditioned.[260] For instance, it was considered ethically right to keep human slaves, or to deny women suffrage.[261] Therefore, to discover what is ethical, we should be guided by reason. Thirdly, ethics requires some form of action. A person does not become virtuous by merely contemplating or theorising what is ethical. They must choose *and* perform their virtuous action.[262]

2. TRADITIONAL ETHICAL THEORIES

2.1. Deontological theory

The term deontological is derived from the word duty.[263] Therefore, deontological theory is duty based.[264] What, then, is our duty? Our duty is to act in accordance with our moral obligations, as expressed in our moral principles. For deontological theory, whether an act is ethical or unethical depends on whether it follows or violates a moral principle. This is in contrast to utilitarianism, which holds that whether an action is considered good or bad is determined by its consequences only. Therefore, according to deontology, some acts will be always wrong, even if the act leads to a positive outcome for people. There are two key stages in the deontological theory framework.

[257] n 252 above.

[258] Whether AI may be described as having artificial legal personality will be discussed in Chapter 4 *Standards in General AI*.

[259] n 207 above.

[260] n 207 above.

[261] Aristotle favoured and defended human slavery and the restriction of suffrage to privileged males only. However, Aristotle's last will and testament specified that his slaves should be freed upon his death.

[262] n 207 above.

[263] This is translated from the Greek word 'Δίων', or the romanised 'deon'.

[264] The term 'deontic' relates to the concepts of permissibility and obligatoriness. These can be expressed by the use of 'may', 'must' and 'shall'.

The first stage is to determine the moral principles. For example, 'it is wrong to steal' or 'it is wrong to lie'. The second stage is to act according to these moral principles, because it is your duty to do so. However, logically, there must be a way of determining the moral principles which we are obliged to observe. There are broadly two main methods of determining moral principles, depending upon the deontological system. The moral principles may derive from a divine, supreme being, or human reason. The main deontological moral systems are the Judeo-Christian tradition; the Islamic tradition; the Greek Stoic tradition; and Kantian Ethics.[265]

2.1.1. *Monotheistic religious traditions*

In the monotheistic religious traditions of Judaism, Christianity and Islam, moral principles are revealed by the Creator-God, and are adopted by those who chose to follow them. For example, Moses received the Ten Commandments, Jesus Christ delivered his moral teachings during the Sermon on the Mount and the Prophet Muhammad received Allah's[266] moral guidance over a period of 23 years, i.e. the Holy Qur'an. In the religious deontological tradition, morality ultimately rests on the Creator-God who reveals moral principles to the followers. However, this is not to suggest that the religious traditions of Judaism, Christianity and Islam do not countenance the faculty of human reason.[267]

2.1.2. *Greek Stoic tradition*

In the Greek Stoic tradition, moral principles abide in natural law. For the Stoic philosophers[268], God is in nature and, primarily, the immanent principle governing the world.[269] At the centre of the Stoic philosophy is the conviction that even the smallest coexistent parts of the universe, such as the 'falling of a leaf from a tree'[270] are connected to one another and contribute to form one

---

[265] n 207 above.

[266] The word Allah is Arabic and literally means 'The God'.

[267] Holy Bible, Isaiah 1:18 '*Come now, let us reason together, says the Lord: though your sins are like scarlet, they shall be as white as snow; though they are red like crimson, they shall become like wool*'; and 1 Peter 3:15 '*But in your hearts revere Christ as Lord. Always be prepared to give an answer to everyone who asks you to give the reason for the hope that you have*' (Emphasis added). Meanwhile, the Holy Qur'an repeatedly stresses the need to exercise human reason to understand the significance of Allah's laws and apply them to a given situation. Indeed, the Holy Qur'an condemns Muslims for not using their faculty of reason to meet new situations and challenges, albeit within the limits of the legal and ethical values set forth in the Holy Quran. Mazheruddin Siddiqui, 'Islam and Human Reason' (1983) 22 Islamic Studies 11. <https://www.jstor.org/stable/20847227> accessed 21 September 2022.

[268] Such as Zeno, Seneca, Epictetus and the Roman emperor Marcus Aurelius.

[269] The Stoics referred to 'λόγος', romanised as 'logos', which can also mean 'God', 'Providence', 'Fortune' and 'Fate'. Harold B. Jones, 'Marcus Aurelius, the Stoic Ethic, and Adam Smith' (2010) 95 Journal of Business Ethics 89.

[270] n 269 above.

vast and interconnected system.[271] Moreover, God's universe has a rationality and a purposeful order. Humanity is in harmony with God and His purpose, and therefore it lives in accordance with natural law. Moral principles are part of the natural law, but recognisable through human reason. Good is inherent in human nature and it is through human rationality that we are able to recognise the good.[272] Indeed, the Stoic philosophers taught that a life according to nature was a matter of consciously choosing to fulfil one's role in the grand design, and therefore performing one's self-sacrificial duties to others.[273]

2.1.3. Kantian Ethics

Immanuel Kant devised the most important secular approach to deontological ethics. Kantian moral principles are not revealed by a divine supreme being, but are grounded in human reason. Kant's metaphysics of morals is a system of '*a priori*' moral principles which apply to all humans in all times and cultures. As a result, moral duties present themselves to us as absolute and universal.[274] This is because without a supreme norm by which to judge them correctly, morals are subject to corruption. For something to be morally good it is insufficient that it conforms with the moral law, it must also be done unconditionally. Kant explained that duty cannot be heteronomous,[275] because if the command is hypothetical or premised on a condition, either of a reward or punishment, we have the option of either complying or rejecting the command due to either our acceptance or our refusal of the condition.[276] Meanwhile, Kant held the view that the moral law should be sought in a pure philosophy. For example, an *a priori* principle might be expressed as follows: '*You must treat your customers fairly*'. Meanwhile, an *a posteriori* principle might be expressed as follows: '*You must treat your customers fairly, <u>because</u> you will enjoy a good reputation, and ultimately you will maximise profits*'. While this may be based upon

[271] This is similar to Islamic theology. For example, the Holy Quran Verse 6:59 states: '*With Him are the keys of the unseen—no one knows them except Him. And He knows what is in the land and sea. <u>Not even a leaf falls without His knowledge, nor a grain in the darkness of the earth or anything—green or dry—but is written in a perfect Record</u>*'. (Emphasis added).

[272] n 207 above.

[273] Harold B. Jones claims that Adam Smith's notion of the 'invisible hand' is best understood in terms of Stoic duty. n 269 above.

[274] Immanuel Kant, *Groundwork of the Metaphysics of Morals*, (Mary Gregor and Jens Timmerman, eds and trs, Cambridge University Press 2012).

[275] *heteronomous* means acting in accordance with one's desires rather than reason or moral duty. In Kant's view moral principles must not appeal to such interests, for no interest is necessarily universal. Robert Johnson, 'Kant's Moral Philosophy' (2019) The Stanford Encyclopedia of Philosophy (Edward N. Zalta, ed) <https://plato.stanford.edu/archives/spr2019/entries/kant-moral/> accessed 21 September 2022.

[276] Christine M. Korsgaard, *Creating the Kingdom of Ends* (Cambridge University Press 1996).

available empirical evidence, this may not necessarily be true in a metaphysical sense. There may come a time when extraneous events cause a firm to lose profits, or ultimately fail, irrespective of the firm's treatment of their customers. The corollary of this *a posteriori* principle is the conditional statement: '*I will only treat my customers fairly if I want a good reputation and maximise my profits*'. However, as the global financial crisis and misconduct scandals revealed, the reputation of banking institutions was not founded upon fair treatment of customers. Many of the most celebrated banking institutions in the UK were reprimanded for market misconduct. In other words, a good reputation in the market does not necessarily rest upon the fair treatment of customers, particularly if the determination as to whether there has been fair or unfair customer treatment may only be discovered after a delayed period. Indeed, a number of misconduct scandals were only exposed following the global financial crisis.[277]

Kant's ethical system provides three broad propositions: a moral agent's action is moral only if the agent does it out of a sense of duty; a moral agent's action is moral only if the agent acts on the basis of a principle or maxim; and it is a moral agent's duty to act out of reverence for the moral law. Firstly, the moral agent is a person who performs an action and has the capacity to act morally. While we would normally argue that freedom is a prerequisite for morality, Kant argued the contrary. A person experiences freedom when they reflect on the ability they have to make an ethical decision. Secondly, a maxim is a principle or general rule governing the action of a rational person. For example, 'it is wrong to lie' is an example of a maxim or moral principle. Thirdly, the desire to fulfil one's duty in acting on moral principles comes from the will. This is the faculty of deciding, choosing and acting.[278] We exercise good will when we act according to moral principles, and our autonomous will originates moral action. In Kant's ethical system, morality implies a Categorical Imperative. We do what we must because of our duty to follow the moral law, without any consideration of the likely consequences. In his ethical system, Kant relies upon the Categorical Imperative to test if moral principles or acts are right. The Categorical Imperative consists of three formulations.

The first formulation is '*act only according to the maxim whereby you can at the same time will that it should become a universal law without contradiction'*.[279] This means something can only be right if you are able, without contradiction, to wish it to become universal law. If we are

[277] As Warren Buffett, Chairman of Berkshire Hathaway, famously stated in a letter to shareholders in 2002, '*after all, you only find out who is swimming naked when the tide goes out*'. Warren Buffett, 'Chairman's Letter, Berkshire Hathaway Inc' (28 February 2002) <http://www.berkshirehathaway.com/2001ar/2001letter.html> accessed 21 September 2022.

[278] n 207 above.

[279] n 274 above.

satisfied that everyone in society should be bound by the same principle upon which we choose to act, then what we are doing is right. Kant provides the example of keeping promises.[280] For example, A needs a loan from B but she will only secure the loan if she promises to repay it. However, she knows that she will not be able to repay the loan. A considers whether she should still promise to repay B with this knowledge. If we apply Kant's first formulation, we would only be right to make a promise we cannot keep if the principle, 'make promises you cannot keep' can be made into a universal law. Given this principle involves a contradiction, because promise-keeping becomes self-defeating if everyone is entitled to break their promises, it is always wrong to make a promise we know we cannot keep.[281] The second formulation is '*act in such a way that you treat humanity, whether in your own person or in the person of any other, never merely as a means to an end but always at the same time as an end'*.[282] This means that we have a perfect duty to not use others or ourselves merely as a means to some other purpose. All human beings are rational beings who are valuable, possess dignity and are worthy of respect. Therefore, we should treat each person as an end, with respect and dignity. This may be illustrated with the above example. If A takes the loan and makes a promise which she intends not to fulfil, then A does not treat B as an end but as a means to an end, which is to secure the loan. The third formulation is '*therefore, every rational being must so act as if he were through his maxim a legislating member of the universal kingdom of ends'*.[283] The 'kingdom of ends' is the society of autonomous rational beings, which is capable of understanding the moral law, and knowingly and willingly act in accordance with the moral law. Given that reason is universal to all rational beings, we each give ourselves the same moral law. This may be illustrated again by the above example. A should not make a promise she intends not to fulfil to B. In doing so, A does not treat B as an autonomous person. A is a rational being who does not wish to be on the receiving end of an unfulfilled promise. The moral principle, 'make promises you cannot keep' would not be legislated by B. Nor would it be legislated by A. The test of the morality of a principle is not whether people accept it but whether *all* rational beings should accept it, irrespective of whether they are agents or recipients of the actions.[284] The Categorical Imperative is a first order principle of pure practical reason. It does not tell you the content of your moral obligations. However, it does provide the criteria against which we can test whether an action or a second-order principle is moral. An example of a second-order principle is the moral principle that 'lying is wrong'. This principle proposes a moral norm or rule, which is applicable and binding upon all rational

[280] n 274 above.

[281] Mel Thompson, *Ethical Theory* (2nd edn, Hodder Murray 2005).

[282] n 274 above.

[283] n 274 above.

[284] n 274 above.

beings unconditionally. However, this second-order principle has content, and is consistent with the Categorical Imperative, which Kant describes as the moral law.

2.1.4. Criticisms

One criticism of deontological ethics is that it simply requires a person to act in accordance with certain principles. Therefore, supererogation is not required, and other-regarding behaviour which extend beyond moral obligations may not be captured in ethical terms.[285] Therefore, it may not be helpful for encouraging acts of selflessness or exemplary behaviour. Another criticism of the deontological theory claims that it fails to resolve moral dilemmas which arise from conflicting moral principles. A notorious example is of the murderer at the door. A murderer asks you whether his intended victim is at home. If you tell the truth, the murderer will kill his victim. However, if you lie, you will be breaching the moral duty of always telling the truth. There are several ways to resolve this dilemma. The first option is to make an exception to the principles. However, in Kantian deontological ethics, a moral principle is either violated or not. There is no space for exceptions. The second option is to develop a pluralistic theory. For example, David Ross[286] distinguishes 'prima facie' and 'actual' duties. He suggests that our intuition allows us to acknowledge various general obligations. However, we do not know which obligation is appropriate for which situation. This is where our ability to reason becomes paramount. For each situation we must seek the most compelling obligation. This is the obligation that, if performed, will lead to the greatest preponderance of good. If more than one principle is relevant in a given situation, we must evaluate which would yield the best result. David Ross claims that moral principles fall under a prima facie duty which must always be performed, unless they conflict with another more pressing obligation. The actual duty is the highest and most binding obligation. For example, always being on time for one's appointments is a prima facie duty. This is generally binding. It is only in extraordinary situations that we are relieved of this duty. For example, if a person, on her way to an appointment, stumbles upon an individual in need of urgent medical assistance, it remains that she must keep her appointment. However, on this occasion, she is obliged by a more pressing duty, which is to aid the afflicted individual. Some have argued that it is impossible to determine which duty should be honoured in a conflict. Moreover, it remains unclear how a trade-off between different obligations could or should be made.[287] Christine

[285] Muel Kaptein and Johan Wempe, *The Balanced Company, A Theory of Corporate Integrity* (OUP 2002).

[286] David Ross and Philip Stratton-Lake, *The Right and the Good*, (OUP 1930).

[287] n 286 above.

Korsgaard has provided an alternative solution.[288] She explains that in his historical and political writings[289], Kant considered that the Kingdom of Ends, the highest political good, can only be realised in conditions of peace.[290] This did not necessarily commit a nation to a simple pacifism that would make it the easy victim of its enemies.[291] Kant also outlines laws of war, in which peace operates not as an uncompromising ideal to be observed in the present time, but as a long-range goal which guides our conduct even when war is necessary.[292] Christine Korsgaard argues that if such a view could be held for the conduct of nations, the task of Kantian moral philosophy is to draw up for individuals special principles to use when dealing with evil. One final point of criticism levelled at Kant's deontology is the fact that ultimately it reverts to ends or goals. John Stuart Mill illustrates this by explaining that lying is immoral because it undermines the trust we place in one another, which is essential to society. The final criterion is goal oriented which is the well-being of society. Kaptein and Wempe explain that this can be countered by arguing that while deontological ethics includes ends of an action in moral evaluations, the moral content of an action is not conclusively determined by its consequences.[293]

2.2. Utilitarianism

Utilitarianism is a form of ethical theory which proposes that an action is right only if it conforms to the principle of utility. This means that its performance will be more productive of pleasure, happiness or the common good, or more preventative of pain or unhappiness than any alternative.[294] This theory requires the application of a cost-benefit analysis to society at large. A characteristic feature of this theory is the idea that the rightness of an act depends entirely on the value of its consequences.[295] For this reason, many philosophers since the 1960s have chosen the

[288] Christine Korsgaard, 'The Right to Lie: Kant on Dealing with Evil' (1986) 15 Philosophy & Public Affairs 325 <https://www.jstor.org/stable/2265252> accessed 21 September 2022.

[289] In his 'Lectures on Ethics' publication (1775-1780), Kant proposed that it is permissible to lie to someone who lies to or bullies you, as long as you don't say specifically that your words are true. He argued that this is not lying, because such a person should not expect you to tell the truth.

[290] n 288 above.

[291] n 288 above.

[292] n 288 above.

[293] n 285 above.

[294] n 239 above.

[295] n 239 above.

term ‘consequentialism’ over ‘utilitarianism’.[296] The utilitarian theories form a sub-class of teleological theories which focus on outcomes, or ends to determine correct ethical action.[297]

The utilitarian method of evaluation does not provide for mathematical precision. However, it does provide an analytical framework and a number of guiding steps to follow when evaluating the ethics of our conduct or decisions. The first step is to identify those directly and indirectly affected by the conduct. This could involve society as a whole. A good example is insider trading, which impacts the integrity of the stock markets and therefore has systemic effects. The second step is to evaluate the good and the bad consequences of the conduct on those affected. This may extend into the longer term future, although this will likely impact reliability. The third step is to weigh the total good against the total bad consequences considering the quantity, duration, proximity, intensity and purity of each value and the relative importance of each value. If the conduct produces more good than bad consequences, then the conduct is ethical. If the conduct produces more bad than good consequences then the conduct is unethical. The fourth step is to consider an alternative action or actions and conduct a further utilitarian assessment of the alternative or alternatives. Where the alternative action produces more good than bad consequences, then this action should be chosen. If the evaluation demonstrates that all alternatives produce more bad than good consequences, then the action which produces the least bad consequences should be selected.[298]

Utilitarianism may be monistic or pluralistic. Monistic utilitarianism holds that there is only one value that should be used as a criterion – pleasure, or enjoyment.[299] The classical utilitarianism of Jeremy Bentham and John Stuart Mill assumes that the single standard of value is the maximisation of overall optimal pleasure[300] and the absence of pain. This is called hedonistic[301]

---

[296] Elizabeth Anscombe referred to ‘consequentialism’ in her seminal essay ‘Modern Moral Philosophy’ published in 1958. G. E. M. Anscombe, ‘Modern Moral Philosophy’ (1958) 33 Philosophy 1 <https://www.jstor.org/stable/3749051> accessed 21 September 2022.

[297] Teleology comes from the Greek words, ‘τέλος’ or the romanised ‘telos’, which mean ‘purpose’ or ‘end’; and ‘λόγος’, or ‘logos’ which means ‘word’, ‘reason’ or ‘plan’.

[298] n 207 above.

[299] Bentham’s empirical theory of ethics was formulated primarily to serve state policy and legislation, especially criminal law. n 285 above.

[300] Bentham developed this theory in response to the barbaric treatment of people who broke the law. He condemned torture and corporal punishment, and challenged the reason people were punished even if their actions did not harm society.

[301] The meaning of ‘hedonism’ is distinguishable from ‘eudaimonia’. The term ‘hedonism’ derives from the Greek word ‘ἡδονή’ or ‘hēdone’ which means ‘delight’ or ‘pleasure’, which are subjective states of mind. Conversely, ‘eudaimonia’ is more objective and refers to worthwhile pursuits in life, which reflect virtue and excellence of character.

utilitarianism. Therefore, classical utilitarianism guides ethical decisions which provide for the greatest pleasure or happiness for the greatest number of people. Indeed, Bentham devised a hedonistic calculus to weigh pleasure and pain, which he considered were quantifiable units.[302] The theory assumes that all human beings are equally entitled to happiness. We may not prefer our happiness, or the happiness of our friends or family above the happiness of others. Therefore, the utilitarian ethical approach is universal. Pluralistic utilitarianism refutes the assumption that all values are a means to pleasure. It considers that it is possible to pursue aesthetic values and knowledge for their own sake as well, such as a researcher who examines a subject area out of scientific curiosity only.[303] Another form of utilitarianism is preference utilitarianism, which has its origins in neoclassical economics and game theory.[304] Preference utilitarianism is based on the satisfaction of individual needs, rather than desired states or situations as the criterion for moral action. A person's actions reflect their needs and the value or utility of a good can be inferred from the price that someone is willing to pay for it. If the buyer pays a price for something instead of using the money for something else, the product represents utility for the buyer. However, there are several problems with this theory. Firstly, while it works well in a market system, not all human needs are capable of being expressed in this system. For example, the need for love, friendship, recognition, health, and a clean and sustainable environment are unlikely to be incorporated into this system. Secondly, there is the question of whether all needs are appropriate to be satisfied, in particular, the needs of a sadist or criminal. Therefore, it will be necessary to distinguish preferences that are acceptable and those that are not acceptable to society. This requires an ethical criterion that can be used for selecting the appropriate preferences.[305] The impetus for maximisation and the emphasis on efficiency is an essential feature of the dominant Western economic theories. For example, our limited means of production, i.e. labour, capital, nature and technology, need to be utilised in such a way that they satisfy human needs to as great an extent as possible. Indeed, the requirement upon corporations to maximise production are a translation of the utilitarian criterion for moral action.[306]

2.2.1. Rule Utilitarianism

Rule utilitarianism determines the rightness of an act by focusing on the consequences of rules. The weight of the analysis falls on the consequences of observing a set of rules, as compared

[302] n 285 above.

[303] n 285 above.

[304] n 285 above.

[305] n 285 above.

[306] n 285 above.

with an alternative set of rules.[307] Those rules which have the best overall consequences are the best rules. Consequently, the right action is the one which conforms with the best rules. Modern proponents of rule utilitarianism explain an act will only be considered right if it follows a set of rules that can be learned and acknowledged as morally binding by everyone in the group or community.[308] Therefore, the rules of morality, decision-making and applicable sanctions are justified by their consequences.[309] However, the intrinsic value of the rules may not necessarily be just, so there would still be a need to explain the rationale for observing the rule if it clashes with their self-interest.[310] Rule utilitarianism provides for general rules which have been developed following numerous utilitarian calculations of similar actions. Those general rules may be relied upon, because they apply to similar classes of actions. For example, when evaluating the ethics of lying for personal economic gain, we may determine that lying under these circumstances is wrong by observing the historical consequences, without needing to perform a further utilitarian evaluation.[311] There are strict and liberal interpretations of rule utilitarianism. Strong rule utilitarianism provides that a person should never break a rule that is established on utilitarian principles. Weak rule utilitarianism provides that there may be circumstances when the outcome of a particular act may take precedence over the general rule in a utilitarian calculation, although the rule still needs to be considered.[312] Rule utilitarianism provides a measure of universality by introducing a rule of behaviour between the individual and the conduct. It also distinguishes the agent from assessment of the morality of the act because they merely have to adhere to the rules.[313] This, it has been argued, makes rule utilitarianism more objective.[314]

2.2.2. Act Utilitarianism

Act utilitarianism proposes that individual action with its own specific details and facts should be subject to the utilitarian analysis. It requires the agent to act in such a way as to produce the best consequences possible, providing a spectrum of best to worst overall consequences from an objective perspective. An act is considered ethically right if the sum total produces a greater amount of good, which outweighs the bad consequences. Therefore, bad outcomes are not

[307] n 249 above.

[308] Jess Villa, *Ethics in Banking: The Role of Moral Values and Judgements in Finance* (Palgrave Macmillan 2015).

[309] n 308 above.

[310] n 308 above.

[311] n 308 above.

[312] n 207 above.

[313] n 207 above.

[314] n 207 above.

excluded, but are outweighed by the aggregate number of good outcomes. This may be illustrated with the example of insider trading. In such cases, the non-public information, and circumstances may be different. To determine the ethics of the conduct we would need to calculate the impact of a particular trade on a particular set of insider information. The effects will be similar to those of any trade on insider information, but they also will be different. If we do not carry out a utilitarian analysis, we may not discover that there are non-conventional facts about a particular insider trading case. Therefore, while insider trading is considered unethical, there may be some instances in the future which do not fall under this rule. In such cases, the act utilitarian will claim that insider trading may be morally permissible.

2.2.3. Criticisms

It has been observed that utilitarianism has two practical problems, and two fundamental problems.[315] The practical problems relate to measurement and comparison. Primarily, it is doubtful whether we should seek to quantify the costs and benefits and by implication, the common good.[316] The risk is that non-quantifiable consequences will be largely ignored, and it is primarily the qualitative pleasures that play a role in happiness. However, to consider pleasure in qualitative terms is also challenging. How would we determine which situation contributes most to the common good? And how would we calculate damage to people's health in qualitative terms? This leads us to the problem of comparison. How should we compare fundamentally incomparable goods to determine the extent to which they promote happiness or the common good? How is it possible to compare health with economic prosperity? In order to determine which situation represents the greatest common good, we have to be able to make a comparison between different goods. John Stuart Mill argued that we should weigh up the pros and cons of various alternatives as conscientiously and accurately as possible, given our limited time and knowledge. On this basis, we may rely on our common sense and experience and choose between the most incomparable of options in our everyday lives.[317] If it transpires that the wrong decision was made, it does not necessarily follow that an action was not responsible.[318] Therefore, to judge an action which has gone wrong, we must look at the intention behind the action.[319]

---

[315] n 285 above.

[316] The conventional wisdom in financial institutions is to sell as many financial and banking products to customers, which is based upon the utilitarian ethic of providing the greatest amount of happiness. Irrespective, unforeseen consequences may occur as the US sub-prime crisis which preceded the global financial crisis revealed.

[317] n 285 above.

[318] n 285 above.

[319] n 285 above.

The fundamental problems concern justice and rights.[320] For example, it isn't clear how the benefits of one person should be weighed against the costs for another person. The utilitarian method provides no instruction on how the costs and benefits of the greatest pleasure for the greatest number should be distributed. Bentham recognised this problem. His claim is that utilitarianism also places demands on how pleasure is distributed in society. While the aim remains the greatest pleasure for the greatest number, he doesn't explain at what point this maximum spread is attained. This fails to resolve issues such as how many minority groups we may discriminate against for the purpose of securing jobs for 10,000 other people. The problem of rights corresponds to the problem with justice. On what grounds can people's rights be infringed for the purposes of serving the common good? Would it be acceptable simply to usurp rights that are based in a contractual agreement or in the Universal Declaration of Human Rights if it promoted the common good? While a rule-utilitarian would seek to avoid this challenge by claiming that the common good is served by accepting the rules, it still fails to address the fundamental problem. It has been suggested that as soon as a principle of distributive justice or rights proves to be generally detrimental to the common good, the same rule-utilitarian would change their mind and amend their rule.[321]

2.3. Virtue ethics theory

The Western philosophical tradition was dominated by virtue ethics during the classical period. Aristotle developed and formulated a sophisticated theory, which remains a model for contemporary virtue ethics today. Generally, virtue ethics is concerned with right and wrong in respect of a person's character.[322] In 'The Nicomachean Ethics' Aristotle explains that those who exercise their reason and cultivate it will be the happiest,[323] which is attained through virtue or excellence.[324] Therefore, whether an act is right will depend upon the character and the motivation of the person, rather than the act itself, or its consequences. This agent-centeredness distinguishes virtue ethics from utilitarianism and deontological ethics, which are both act-centred. For act-centred ethical theories, whether an act is wrong is determined not by the character of the person performing the act, but the act itself in the case of deontological ethics, or its consequences in the case of utilitarianism.

[320] n 285 above.

[321] n 285 above.

[322] n 50 above.

[323] n 239 above.

[324] This is translated from the Greek word 'ἀρετή' or the romanised 'areté'. The Latin 'virtus' refers to an ability or capability to perform what is expected of a person.

In contemporary virtue ethics there are differences of opinion regarding the extent to which morality is dominated by the notion of virtue. For example, Kara Tan Bhala[325] sets out three contemporary versions of the agent-centred focus – the moderate, the reductionist and the replacement versions.[326] The moderate version regards most of morality as connected with character, although some acts can be assessed independently of virtue.[327] Some acts are wrong irrespective of who carries them out, and their motivation.[328] The ethical status of acts is not entirely derivative from the character of individuals.[329] The reductionist version considers that we should employ deontic concepts, such as rightness and duty, provided that they derive from virtues.[330] The replacement version provides that all deontic notions, such as rightness, wrongness and duty, should be eliminated and replaced by virtuous notions.[331] What it means to act morally is to practice virtue, not to follow moral principles or rules.[332] A fourth perspective is the 'augmentation version'. The augmentation version holds that acting morally includes practising virtue *and* following principles or rules.[333] Virtues theories are considered compatible with principle-based approaches, and as a result, they should supplement, rather than replace principle-based theories.[334] In any event, each of these versions of contemporary virtue ethics is based on the notion of a virtuous character, where the moral goodness of a person is determined by the virtues they possess. Therefore, rather than asking the question, 'what should I do?' virtue ethics help us to consider 'what sort of person should I be?', and 'what sort of life should I live?' However, these questions are not answered by consulting principles, norms, rules and laws. They are answered by considering the person's character along with other morally significant features, for example, the social context of community and tradition.

In traditional Aristotelian virtue ethics, a person's character is formed of all their virtues and vices. However, the person who possesses virtues, and practises those continuously, develops their character and becomes a virtuous person. For example, honesty, the disposition to tell the

[325] n 207 above.

[326] Daniel Statman, 'Introduction to Virtue Ethics' in Daniel Statman (ed), *Virtue Ethics: A Critical Reader* (Georgetown University Press 1997).

[327] n 326 above.

[328] n 326 above.

[329] n 326 above.

[330] n 326 above.

[331] n 326 above.

[332] Stephen M Cahn and Peter Markie, *Ethics: History, Theory, and Contemporary Issues* (OUP 1998).

[333] n 332 above.

[334] For Kant, virtue is a useful by-product of acting morally. David B Resnik, 'Ethical virtues in scientific research' (2012) 19 Accountability in Research 329 <https://doi.org/10.1080/08989621.2012.728908> accessed 21 September 2022.

truth, eventually becomes a habit. This habitual honesty develops into a state of a person's character.[335] A person's state of character is revealed not by one-off or individual acts, but by acts which are practised regularly over a length of time and in different of scenarios. Secondly, the virtuous person does not act virtuously for the sake of being virtuous. A truthful person, for example, tells the truth because they love the truth,[336] and a generous person acts generously, not because of concern for the well-being of others but, because they are motivated by generosity. Therefore, no further claim needs to be given to distinguish self-interest, altruism and concern for others.[337] The virtues, accordingly, do not require deliberation. Thirdly, a virtue is a state of character that a human being needs for 'eudaimonia', i.e. to live well as human beings. Therefore, the person who possesses virtue and performs the right acts does so for this purpose. While utilitarian and deontological ethics develop general rules of right and wrong acts, this is not the case for virtue ethics. The virtuous person expresses who they are through their acts, and through their acts they develop their character. Therefore, the virtuous person refrains from unethical acts, i.e. a truthful person does not lie, and an honest person does not cheat. Moreover, virtue ethics makes general or inductive statements, rather than specific or deductive judgements.[338] Virtue ethics considers an individual's responses to specific situations and judges the characters these reveal.[339] It does not provide exact or fixed answers.[340] Indeed, virtuous people may arrive at different answers to the same problem.[341]

Virtue ethics does not make strong theoretical claims and, in some contemporary versions, is almost anti-theoretical.[342] While utilitarianism and deontological ethics seek to derive virtues from first order principles, the rules developed by those theories are considered too rigid and insensitive to particular contexts and circumstances. Furthermore, they are considered counterproductive, restricting a person's ethical development and pursuit of a good life.[343] Moreover, virtue philosophers argue that Aristotelian practical wisdom[344], is the essential virtue

---

[335] The state of a person's character is 'ἕξις' or 'hexis'. This has also been translated to mean 'state', 'stable disposition', or 'way of being'. Pierre Rodrigo, 'The Dynamic of Hexis in Aristotle's Philosophy' (2011) 42 Journal of the British Society for Phenomenology 6.

[336] Stan Van Hooft, *Understanding Virtue Ethics* (Acumen Publishing 2006).

[337] Robert C. Solomon, 'Business Ethics and Virtue', in Robert E. Frederick (ed), *A Companion to Business Ethics* (Blackwell Publishing 2003).

[338] John Hendry argues that the application of virtue ethics is more an art than a science. n 218 above.

[339] n 218 above.

[340] Aristotle, *The Nicomachean Ethics*, 2.2, 1104a6 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[341] n 207 above.

[342] n 218 above.

[343] n 218 above.

[344] This is translated from the Greek word 'φρόνησῐς', or the romanised 'phronesis'.

because it is concerned with action about matters that are good or bad for human beings. Indeed, moral virtue is intrinsic to human beings and comes naturally without application of ethical principles or rules. For example, Dennis Moberg describes practical wisdom as 'a disposition towards cleverness in crafting morally excellent responses to, or in anticipation of challenging particularities'.[345] He relies on Aristotle's meaning of moral virtue as that established by moral communities consisting of individuals who strive to lead good lives.[346] However, this is not to say that there are no rules. Aristotle explains that there are certain actions and emotions which imply wrongness per se, and therefore we cannot derive a mean from them.[347] For example, in the case of emotions, such as spite, shamelessness and envy,[348] and in the case of actions, such as adultery, theft and murder. Aristotle explains that it is not possible ever to be right with regard to them. Therefore, an inherently wrong act, for example murder, does not become right because it is committed against the right person, at the right time and in the right manner. To commit murder is always wrong.[349] Therefore, while Aristotle asserts that virtue ethics cannot be reduced to a system of rules, he insists that some rules are inviolable.[350]

2.3.1. The nature of virtues

In The Nicomachean Ethics, Aristotle distinguishes between 'intellectual virtues' and 'moral virtues'. Aristotle defines moral virtue as a state of character concerned with choosing that which is the mean, which is determined by reason and practical wisdom[351]. Practical wisdom is the ability to reason appropriately about practical matters. Aristotle explains that a moral virtue[352] is

---

[345] Dennis J. Moberg, 'Practical Wisdom and Business Ethics' (2007) 17 Business Ethics Quarterly 536.

[346] n 345 above.

[347] Aristotle, *The Nicomachean Ethics*, 2.6, 1107a5 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[348] Aristotle, *The Nicomachean Ethics*, Notes to 2.6, 1107a5 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[349] Aristotle *The Nicomachean Ethics*, 2.6, 1107a10 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[350] The reductionist version of modern virtue ethics, which provides that we should employ deontic concepts, such as rightness and duty, provided that they derive from virtues is most consistent with this Aristotelian position.

[351] This is translated from the Greek word 'φρόνησῐς', or the romanised 'phronesis'.

[352] The moral virtues are bravery ('ἀνδρεία' or 'andreia'), temperance, in respect of bodily pleasure ('σωφροσύνη' or 'sophrosyne'), generosity (liberality) ('ειεπζεξηόηηο' or 'eleutheriotes'), magnificence ('κεγαινπξέπεηα' or 'megaloprepeia'), self-respect or pride (proper sense of one's own worth and honour) ('μεγαλοψυχία' or 'megalopsychia') (modesty: see 'Αἰδώς' or 'Aidos'), the nameless virtue of having some ambition, though not in excess, gentleness or good temper (including the ability to control one's anger) ('πραωτές' or 'praotes'), friendliness ('φιλία' or 'philia'), truthfulness (the medium between boastfulness and self-depreciation) ('αιήζεηα' or 'aletheia'), wittiness ('εὐτραπελία' or 'eutrapelia') and justice ('δικαιοσύνη' or 'diaiosyne'). Aristotle's virtues were developed from Plato's The Republic, which referred to the four classical cardinal virtues of justice ('iustitia' or 'δικαιοσύνη' or 'dikaiosyne'), wisdom (prudence) ('sapientia' or 'prudentia', 'φρόνησῐς' or 'phronesis'), courage ('ἀνδρεία' or 'andreia'), and self-control (or moderation, being sensible) ('temperantia', 'σωφροσύνη' or 'sophrosyne').

the mean between two vices, which are excess and deficiency.[353] For example, courage is the mean between fear and confidence.[354] Temperance is the mean between self-indulgence and insensibility.[355] In the context of giving and receiving money, generosity is the mean between prodigality and meanness.[356] Aristotle concludes that a person cannot be morally virtuous without practical wisdom and vice versa. Indeed, the respective functions of moral virtue and practical wisdom cannot be performed independently of one another, and at different times.[357] Therefore, we are required to practise reason and knowledge, i.e. our intellectual virtues[358] to determine what is the mean and therefore, what is virtuous. Through the passage of time, the nature of virtues has changed. In the European medieval period, Thomas Aquinas in Summa Theologica introduced seven virtues, which included three theological virtues: faith, hope and charity; and four cardinal virtues: prudence, justice, courage, and moderation.[359] Following the Enlightenment period, David Hume provides an account of good personal qualities, which includes kindness, benevolence, pride, and courage.[360] He explains morality by defining virtue or merit, as 'every quality of mind, which is useful or agreeable to the person himself or to others, communicates a pleasure to the spectator, engages his esteem, and is admitted under the honourable denomination of virtue or merit.[361] In 'Theory of Moral Sentiments', Adam Smith defines the character of a truly virtuous person as the embodiment of prudence, which moderates a person's excesses; justice, which limits the harm we do to others; beneficence, which improves social life by promoting the happiness of others; and self-command, which moderates our emotions and controls our destructive acts.[362]

---

[353] Aristotle, *The Nicomachean Ethics*, 2.6, 1107a10 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[354] Aristotle, *The Nicomachean Ethics*, 2.6, 1107b0-5 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[355] Aristotle, *The Nicomachean Ethics*, 2.6, 1107b5 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[356] Aristotle, *The Nicomachean Ethics*, 2.6, 1107b5 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[357] Aristotle, *The Nicomachean Ethics*, 10.8, 1178a15 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[358] The intellectual virtues are 'ἐπιστήμη' or 'episteme' ('scientific' knowledge of what is non-contingent, acquired by demonstration), 'νόος' or 'nous' (intelligence: intuitive reason), 'φρόνησῐς' or 'phronesis' (practical wisdom, the ability to deliberate well on matters concerning human welfare), 'τέχνη' or 'techne' (skill, art), and 'σοφία' or 'sophia' (wisdom, theoretical excellence), which combines episteme and nous.

[359] Christian theologians and philosophers in the Middle Ages considered that the destination of man was divine in nature. It was to be realised in the Hereafter, and not on earth. Virtues such as humility, meekness and the recognition of human frailties and sin encouraged human beings to turn their attention to the divine, the perfect, and the transcendent.

[360] n 211 above.

[361] n 211 above.

[362] n 213 above.

Following the Renaissance period and the neo-positivist era, modern virtue ethical theories were required to manage without a generally accepted framework.[363] As a result, proponents of virtue ethics were faced with a number of meta-ethical questions, such as what characteristics or qualities could be called virtues? What were moral virtues based upon? How should moral virtues relate to other amoral characteristics? Are virtues influenced by the moral agent? How do virtue ethics relate to or how do they differ from the common deontological ethical theories? In contemporary virtue ethics theories, virtues are those which are recognised within a particular culture or community. However, in some versions they serve mainly to systematise or rationalise our established social norms. In other contemporary virtue ethics theories, accounts of virtues are intended to unify the various virtues found in different cultures, religions and traditions. For example, John Hendry argues that the accounts of generally accepted virtues vary in detail from culture to culture, but with a great deal of commonality.[364] Furthermore, although the virtues are typically expressed in terms of the traditions and values of particular cultures, their function is to capture the best and most admirable qualities of human nature generally.[365]

2.3.2. Teleological virtue ethics

Aristotelian virtue ethics is teleological in nature. It conceives of a final end or goal, towards which our actions are oriented. The person who possesses virtue and performs the right acts does so for the purpose of seeking 'eudaimonia', 'flourishing' or a 'well-lived life'. 'Eudaimonia' is the final destination, which is not pursued for the sake of anything else. Teleological virtue ethics is distinguishable from consequentialist ethics. Kaptein and Wempe[366] explain that consequentialist ethics employs a certain standard, which is the purpose or end, against which the consequences of an action are judged. Therefore, actions are taken to achieve a certain end, often with a view to a more distant goal. Where ends are a means to a more distant goal, they are referred to as instrumental ends. Conversely, ends that are achieved for their own sake are intrinsic. For example, the government may adopt an industrial strategy which has the instrumental aim of increasing employment, which has the intrinsic goal of pursuing the highest potential utility and general well-being, i.e. flourishing of everyone in society. Teleological virtue ethics is distinguishable from consequentialist ethics because it is concerned with an ultimate end goal or purpose, but also because the practise of virtue is central to the theory. Meanwhile,

[363] n 285 above.

[364] n 218 above.

[365] n 218 above.

[366] n 285 above.

consequentialist ethics aims to achieve the best consequence in any particular situation, which will generally contribute to the overall goal.

Contemporary virtue ethics comprises both non-teleological and teleological frameworks. Gary Watson claims that only non-teleological views of the virtues can be regarded as genuine instances of virtue ethics.[367] Meanwhile, Michael Slote argues that we admire certain states of character not for their results but for their intrinsic character.[368] However, Julia Annas argues that any virtue ethics theory that focuses only on virtues is not complete, because the virtues are not located in a theoretical structure that includes an end or a goal.[369] The main criticism of non-teleological virtue ethics is that if the virtues are not anchored to a larger theoretical framework, they have no foundation, and, as a result, we are unable to account for wrong judgements and actions. Kara Tan Bhala argues that philosophers are reticent to recognise teleological language on the basis that it reflects an outdated world-view in which all nature is seen as reflecting the will of a divine God.[370] However, this is not the only way to interpret teleology.[371] For example, Rosalind Hursthouse argues that 'eudaimonia' is the purpose of every human being. It is grounded in human nature, such that human beings need the virtues in order to live a characteristically good human life. Therefore, the teleology of 'eudaimonia', 'flourishing' or a 'well-lived life' need not be grounded upon a divine Will, but rather on human nature, which is universal.[372]

2.3.3. Criticisms

Virtue ethics generally began with an established tradition or culture that upholds characteristics which are admired in that tradition or culture.[373] For example, Aristotle considered the virtues for ancient Athenian society as the temperate mean between two vices of deficiency and excessiveness.[374] Meanwhile, we may find different virtues in each of the medieval period of Thomas Aquinas, the Enlightenment period, the Victorian era, and the current post-modernist period. This cultural aspect of virtues gives rise to the criticism that virtue ethics is relativistic.

---

[367] Gary Watson, On the Primacy of Character' in Daniel Statman (ed), *Virtue Ethics: A Critical Reader* (Edinburgh University Press 1997) <http://www.jstor.org/stable/10.3366/j.ctvxcrshc> accessed 21 September 2022.

[368] Michael Slote, *From Morality to Virtue* (OUP 1992).

[369] Julia Annas, 'Virtue and Eudaimonism' (1998) 15 Social Philosophy & Policy 1.

[370] Kara Tan Bhala, 'Fortifying Virtue Ethics: Recognizing the Essential Roles of Eudaimonia and Phronesis' (PhD thesis, University of Kansas 2009).

[371] n 370 above.

[372] Rosalind Hursthouse, *On Virtue Ethics* (OUP 1999).

[373] n 218 above.

[374] Aristotle, *The Nicomachean Ethics*, 2.6, 1107a10 (David Ross, tr, Lesley Brown, ed, OUP 2009).

This is the idea that there may be very different virtues in different societies, which makes it difficult to identify our virtues, and indeed, identify which ones are *real*. Secondly, as a consequence of the emphasis on context and circumstances, the functions that people perform in society have become morally significant. Therefore, particular roles become associated with certain responsibilities, and with certain virtues.[375] For example, we might say that someone is a 'good lawyer'. For some people, this could mean that they are cold blooded, ruthless and determined to get what they want at all costs, and that these qualities are necessary to being an effective lawyer. However, this doesn't make them *good* in an ethical way.[376] In fact, in virtue ethics we do not develop different sets of virtues for each role in society, as virtues should be defined at the level of the wider social community.[377] It is arguable that the rejection of an end or a goal in contemporary virtue ethics has led to this development. Indeed the 'good lawyer', who is cold-blooded and ruthless, may fall within Aristotle's definition of someone who is 'clever' or 'smart' [378], which means a 'wicked' person,[379] rather than someone who is practically wise, which can only be used to describe a good person.[380] However, not all virtues are relative. Indeed, contemporary virtue philosophers have developed lists of virtues that are intended to unify and systematise the various virtues found in different cultures, religions and traditions. There are virtues which are found in every human society or institution, on the basis of our universal human nature. For example, we consider trustworthiness, fairness or justice, and honesty to be virtues because they are crucial to almost any human exchange.[381] These universal virtues are fundamental to all societies because we require them in order to cooperate and live together harmoniously.[382]

2.4. Justice theories

The Ancient Greek philosophers' reflections on justice formed an essential part of their general deliberations on ethics. In Plato's The Republic, the question of 'what is justice?' is considered

[375] n 218 above.

[376] n 218 above.

[377] n 218 above.

[378] This is translated from the Greek word 'πανοῦργος' or the romanised 'panourgos'. Aristotle, *The Nicomachean Ethics*, 6.12, 1144a25 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[379] n 378 above.

[380] n 378 above.

[381] Recent studies have shown that individuals reward trustworthiness, punish dishonesty, and can develop meaningful social bonds within markets. Stefanie Haeffele and Virgil Henry Storr, 'Adam Smith and the Study of Ethics in a Commercial Society' in Mark D. White (ed), *The Oxford Handbook of Ethics and Economics* (OUP 2019).

[382] n 285 above.

as part of a series of dialogues between Socrates, the narrator, and various respondents.[383] For Plato, justice is the overarching virtue of a person. True justice, or morality, consists in self-control or discipline, by giving due satisfaction to appetites, reason, and spirits, and preventing any of them from dominating the others. Therefore, physical desire, ambition, and intellect must all have their due and proper fulfilment, and find their proper place in the good life.[384] Meanwhile, the justice of society is the fulfilment of a proper function by each class and element of society. It is preferable to be just than become a tyrant because the tyrant is driven by countless and insatiable desires.[385] Indeed, these countless and insatiable desires are a temporary means of repulsing the tyrant's loss and discontentment. However, meanwhile the tyrant becomes enslaved, unsatisfiable and a most unhappy individual. Moreover, it is preferable to be just because the just are ruled by knowledge, understanding and the excellencies of the mind, i.e. reason. These qualities belong to the realm of unchanging and eternal truth which are more real and genuine. Consequently, for the just person who practises these qualities, their enjoyment and pleasure will be the best and most genuine.[386] In the Nicomachean Ethics, Aristotle distinguishes justice in a general and in a particular sense. In the general sense, justice is the greatest of virtues. It is complete virtue in its fullest sense because it is the exercise of complete virtue. It is complete because they who possesses it can exercise their virtue not only in themselves but towards another also. Therefore, justice is not merely part of virtue, but the whole of virtue. Meanwhile, injustice is not merely a part of vice, but the whole of vice. For example, a coward, a person who loses their temper and a miserly person are unlikely to be just. Meanwhile, a brave, self-disciplined and generous person is more likely to be just.[387] In the particular sense, justice is only one of the virtues. Aristotle distinguishes two forms of particular justice – distributive[388] and corrective justice.[389]

2.4.1. Distributive justice

Distributive justice operates in a society in which the state allocates benefits, such as honour and money, and burdens justly amongst people. Such distributions are considered just if equal persons receive equal shares. This just distribution therefore requires a determination of the worth of

[383] In The Republic, Plato refers to the Greek word 'δῐκαιοσῠ́νη' or 'dikaiosúnē', which translates into the English words justice or morality. 'Dikaiosúnē' is derived from 'δικαιος' or 'díkaios' which means 'just' or 'upright'. 'Dikaiosúnē' has a broad meaning and covers both individual and community.

[384] Plato, *The Republic* (Melissa Lane, Introduction, H.D.P. Lee and Desmond Lee, trs, Penguin Classics 1987)

[385] n 384 above.

[386] n 384 above.

[387] Aristotle, *The Nicomachean Ethics*, 5.2, 1130a15 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[388] This is translated from 'διανεμητικής δικαιοσύνης' or the romanised 'dianemetikon dikaion'.

[389] This is translated from 'διορθωτικός δικαιοσύνης' or the romanised 'diorthotikon dikaion'.

persons and of matters being distributed. If persons are not equal, and the matters concerned are not equal, the persons will not have equal shares. As Aristotle explains, this determination of equality provides the origin of quarrels and complaints.[390] For Aristotle, justice, similar to all virtues, is a rational mean between the injustice of two extremes.[391] Justice rests between two opposite types of injustice, one of disproportionate excess, and the other of disproportionate deficiency relative to what a person deserves.[392] John Rawls, an American moral and political philosopher, developed an eminent theory of distributive justice, which is based upon social contract theory.[393] We will briefly discuss John Rawls' theory of justice before returning to discuss Aristotelian corrective justice.

2.4.2. Social contract theory

Rawls' theory of distributive justice applies a Hobbesian social contract theory, together with the third formulation of Kant's Categorical Imperative that '*every rational being must so act as if he were through his maxim a legislating member of the universal kingdom of ends'*.[394] The social contract theory provides that political authority is legitimised through the rational consent of the rational, self-interested, free, and equal persons who are the governed. The basis of the theory is the need of the individual to live peacefully with one another and for self-preservation. Individuals might therefore covenant with one another to submit to the authority and protection of a sovereign power, to live together benevolently, co-operatively and peacefully in a society, and to agree to obey certain laws and on the manner of enforcing those laws. Rawls adopts Kant's third formulation of the Categorical Imperative, and considers that individuals in society are rational beings with autonomy. Therefore, they will freely agree to adhere to the principles upon which they have legislated as rational beings.[395] The members of a society decide upon the principles in a hypothetical situation, which he describes as the 'original position'. This is attained by putting on the 'veil of ignorance'. The 'veil of ignorance' refers to parties not knowing their own class, position or social status in society. They do not know the economic or political

[390] Aristotle, *The Nicomachean Ethics*, 5.3, 1131a 20 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[391] Aristotle, *The Nicomachean Ethics*, 5.5, 1134a 5 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[392] n 387 above.

[393] John Rawls, *Theory of Justice* (Belknap Press 1971).

[394] n 274 above.

[395] Rawls' theory of justice combines two approaches which have quite opposite views of human nature. For example, for the Hobbesian approach, the contractualist is motivated to pursue their own self-interest which they can justify to others, who are equally seeking their own self-interest. Meanwhile, the Kantian third formulation requires that we always treat people as an end, and not merely means. However Rawls argues that self-interest is transmuted into a commitment to justice, which he takes to mean as fairness to all.

situation of their own society. The only facts that the parties know is that their society is subject to the circumstances of justice and its implications.[396] The operation of self-interest through the veil of ignorance directs us to the formulation of Rawls' two principles of justice. The first principle is 'equal liberty'. This provides that each person is to have an equal right to the most extensive basic liberty compatible with a similar liberty for others.[397] The members of society choose to legislate this principle because from behind the veil of ignorance they are not aware of their position in society. Therefore, they will want to be treated equally with people of a higher status in life if they find themselves of a lower status. In addition, such fundamental rights and liberties would be granted to every person, without infringing the rights and liberties of other persons. The second principle of justice is 'equality'. This principle concerns the distribution of wealth and power which Rawls argues must be consistent with both liberties of equal citizenship and equality of opportunity. The basis of this principle is that while inequalities are inevitable, they may be tolerated only if the least advantaged members of society are improved in position as a result of them. Moreover, the second principle ensures the least advantaged members of society are not denied fair equality of opportunity.[398]

2.4.3. Corrective justice

Aristotle identified the second form of particular justice as 'corrective justice' or 'commutative justice'. This form of justice operates between two parties, in respect of transactions and exchanges. It may be further subdivided into two sub-forms. The first concerns 'voluntary transactions' in which each party keeps their part of a bargain. This sub-form of corrective justice is most relevant to business and finance. It requires fairness in all agreements and exchanges between private individuals or groups. In the exchange of goods and services, sellers set fair prices and provide full disclosure of information. Both parties enter into the transaction freely and are not coerced. In addition, the parties derive some benefit from the transaction. The second concerns 'involuntary transactions', where the victim does not consent to the transaction. For example, in cases of theft, assault, imprisonment, murder and false witness. In corrective justice, the worth of the parties is not important. What is significant is providing redress or restitution for the loss caused to the victim by the perpetrator, or restoring equality, by disgorging the perpetrator's gain and restoring it to the victim. Other forms of justice include 'compensatory justice' which requires compensating a person for a past injustice, or making good some harm or loss suffered in the past. The idea is that people should be provided monetary compensation for

[396] n 393 above.

[397] n 393 above.

[398] n 393 above.

their injuries by those who have injured them. ‘Retributive justice’ is punitive. It seeks to punish those who break the law or have caused harm to others. The punishments must be fair, just and in proportion to the wrongdoing. In general, the relevant criteria for deciding the level of punishment are the seriousness of the crime and the mens rea of the offender. Finally, ‘procedural justice’ concerns fair decision procedures, practices or agreements and is necessary for the fair resolution of disputes.

2.5. A pluralist conception of ethics

The traditional ethical approaches of analysing rules, principles, and duty, adhering to notions of virtue and character, and evaluating consequences provide competing, but equally *complementary* ways of framing conduct in a social setting.[399] Ethical pluralism, which recognises the significance of deontology, virtue ethics and utilitarianism, claims that all three approaches are useful to both positive and normative economics because each provides distinctive insights into human behaviour, and it resolves the limitations of a single framework by introducing elements from the others. Jonathan Wight argues that the neoclassical economic approach to human behaviour and to human welfare, concerned with outcome goals and evaluative methods, is enhanced by drawing upon concepts arising out of duty ethics and virtue ethics. In this regard, the moral frameworks are not always in opposition, but often *complement* each other. For example, Adam Smith’s virtue ethics arise from moral sentiments, not rational calculation. Secondly, in considering the morality of efficiency, a Paretian approach derives ultimately from Kantian considerations of a person’s right to autonomy, and to self-determination through rational choice. Thirdly, the Kaldor-Hicks approach relies on background conditions of human rights and other non-outcome based elements.[400] In this regard the traditional ethical approaches are not hermetically sealed.

However, beyond acknowledging plurality in ethical approaches, others have considered unifying or aggregating the traditional ethical approaches. For example, moral philosopher Derek Parfit argued that where ethical frameworks are engaged in the same endeavour, they could be combined into a unifying framework. There is no need for pluralism when all different accounts are really all the same thing under different guises. On this basis, he combined rule utilitarianism,

---

[399] Jonathan B. Wight, ‘Ethical Pluralism in Economics’ in Mark D White (ed) *The Oxford Handbook of Ethics and Economics* (OUP 2019).

[400] Kaldor-Hicks is a 1930s revision of welfare theory which asserts that as long as the gains to the winners of any change in allocation outweighs the damage to the losers, a policy is efficient.

‘Kantian Contractualism’[401] and ‘Scanlon Contractualism’[402] to form the ‘Triple Theory’ which postulated: ‘[a]n act is wrong just when such acts are disallowed by some principle that is *optimific*, uniquely *universally willable*, and *not reasonably rejectable*’.[403]

Similarly, Kaptein and Wempe argue that the traditional ethical theories should be applied on a complementary and coherent basis.[404] Their ‘Corporate Integrity Model’[405] promotes the simultaneous and balanced use of the three ethical theories – deontology, utilitarianism, and virtue ethics. Therefore, it regulates the relationship between intentions, deeds and consequences.[406] As discussed earlier, one of main criticisms of deontological ethics is the risk of rigidly holding on to moral principles and subsequently losing sight of consequences. Meanwhile, the objection to utilitarianism is the risk that the ends can be used to justify the means. Nonetheless, it is possible to consider both the deontological and utilitarian theories when discussing a moral dilemma.[407] Kaptein and Wempe argue that there is no general rule to indicate when one theory should be followed over the other. In some instances, the consequences of an action should be considered, and in other instances an appeal to principles will be more suited when evaluating the morality of an action. For example, the deontological theory will be most appropriate where the fundamental rights, or the distribution of rights and obligations among different groups of people are involved. However, if the wellbeing of people is likely to be impacted, the consequentialist theory would also need to be considered. On this basis, we could develop a set of ethical standards, and within the limits of those standards agree upon a course of action which provides for the general welfare of consumers. Nonetheless, if we consider actions only, we run the risk of losing sight of the motivations that lie at the heart of an action. Acting purely according to the letter of the law, may be morally defunct.[408] In addition, highly principled approaches may distort moral thinking by downgrading the need for judgement and imagination in discerning the most relevant features, how they interact with each other, and the weight

[401] Derek Parfit’s Kantian Contractualist Formula is a revised version of Kant’s Formula of Universal Law, which provides as follows: ‘Everyone ought to follow the principles whose universal acceptance everyone could rationally will’. Derek Parfit, *On what matters* (Samuel Scheffler ed OUP 2011).

[402] Derek Parfit’s Scanlon Formula holds that ‘Everyone ought to follow the principles that no one could reasonably reject’.

[403] n 401 above.

[404] n 285 above.

[405] n 285 above.

[406] n 285 above.

[407] Mark D White, ‘Deontology’ in Jan Peil and Irene van Staveren (eds), *Handbook of Economics and Ethics* (Edward Elgar 2009).

[408] n 285 above.

attributed to each feature.[409] Moreover, it is argued that an ethical system of rules should be based in the predisposition to act according to the ethical rules. Therefore, a theory of ethical virtues may supplement a theory of ethical duties, whereby virtues provide arguments to justify our ethical duties.[410] Kantian deontology requires of the ethical agent a sensitivity to ethically relevant contextual changes, which are not reducible to codified rules of action.[411] Given that character is required for the exercise of this ethical sensitivity, we may determine that character has an important role in moral decision-making in Kantian deontology.[412] Indeed, Kant's duties of virtue emanate from the Categorical Imperative, which emphasise the virtues of an ideal moral agent, including *respect* and *justice, beneficence and self-development*.[413] The two purposes of Kant's duties of virtue are one's own perfection and the happiness of others, which share a similar perspective to Aristotelian virtue ethics.[414] Therefore, it is suggested that virtue and duty are strictly correlated in deontology.[415] Our duty culminates in the pursuit of virtue, and the proper path to virtue is the fulfilment of our duties. [416]

In a new pluralist conception of ethics, deontological, teleological virtue ethics and utilitarianism may be considered in a hierarchical order, in which deontological or teleological virtue ethics operate as absolute constraints, and are granted lexical priority over utilitarianism.[417] One example of a lexicographic order is that 'moral rights have greater weight than either utilitarian standards or standards of justice; and standards of justice are generally accorded greater weight than utilitarian standards.[418] There may be disagreements about which values are to be given lexical priority and which can be traded off to advance others.[419] In those cases, we should apply our judgement and practical reason to determine the most appropriate course of action. All the

[409] David McNaughton, 'Deontology' in David Copp (ed), *The Oxford Handbook of Ethical Theory* (OUP 2006).

[410] n 285 above.

[411] This sensitivity is also required for ethical decision-making in Aristotelian virtue ethics. John O'Connor, 'Are Virtue Ethics and Kantian Ethics Really so Very Different?' (2009) 87 New Blackfriars 238 <http://www.jstor.org/stable/43251031> accessed 21 September 2022.

[412] n 411 above.

[413] n 274 above.

[414] Onora O'Neill, *Acting on Principle, An Essay on Kantian Ethics* (2nd edition, Cambridge University Press 2013).

[415] Claus Dierksmeier, 'Kant on Virtue' (2013) 113 Journal of Business Ethics 597.

[416] Onora O'Neill, *Constructions of Reason, Explorations of Kant's Practical Philosophy* (Cambridge University Press 1989).

[417] Johan J Graafland, 'Utilitarianism' in Jan Peil and Irene van Staveren (eds), *Handbook of Economics and Ethics* (Edward Elgar 2009).

[418] Manuel G. Velasquez, *Business Ethics: Concepts and Cases* (7th edn, Pearson 2014).

[419] However, it should be noted that all governments grant some considerations deontological status above utilitarian status. n 407 above.

while, the ultimate end goal or purpose of the new pluralist conception of ethics is the promotion of the common good, or the well-being of our society.

3. ETHICS IN ECONOMIC THEORY

3.1. General equilibrium theory

The separation of ethics as an academic discipline from economics became prevalent following the predominance of the general equilibrium theory in neoclassical economics.[420] In the general equilibrium theory, neither academics nor practitioners seek to provide ethical or normative prescriptions. If we consider the current discourse in the discipline of economics, the literature provides scarcely few titles that engage with the ethics of banking or financial ethics.[421] The economic good, or efficiency, is determined independently of the ethical good.[422] In the twentieth century, economists were sceptical about inquiries relating to value.[423] Their concern was primarily to ensure that economics was free of all normative elements, including ethics, so that it could be a 'value-free' science.[424] This concern was prompted by views articulated by members of the logical positivist movement in the early twentieth century. During the 1930s the logical positivists promoted an aggressive version of empiricism, which claimed that inquiry that is neither analytically true nor empirically verifiable is literally meaningless.[425] On the basis of these 'bald assumptions they concluded that ethics and aesthetics, theology and metaphysics, were all 'literally meaningless' and should be jettisoned'.[426] As a result, economics would be value neutral, scientific, and confined to facts and empirically based propositions. However, Morris argues that it is difficult to conceive of science as an enterprise free of all values.[427] Indeed, there is plenty of normative reasoning in scientific work, ranging from discussions about choices of metrics and classifications, to consideration of the epistemic and ethical norms that adequate research requires.[428] Conversely, Milton Friedman, the Nobel Laureate for Economics, said

[420] This is also known as the 'separation thesis'.

[421] Peter Koslowski, *The Ethics of Banking, Conclusions from the Financial Crisis* (Deborah Shannon tr, Springer 2012).

[422] n 421 above.

[423] There was also during this time a decline in the importance attached to principles in economics and in life generally. P S Atiyah, *The Rise and Fall of Freedom of Contract* (OUP 1985).

[424] Amartya Sen, 'Economics and Ethics' in Christopher Morris (ed), *Contemporary Philosophy in Focus* (Cambridge University Press 2010).

[425] Onora O'Neill, 'Justice without Ethics: A Twentieth-Century Innovation?' in J. Tasioulas (ed), *The Cambridge Companion to the Philosophy of Law* (Cambridge University Press 2020).

[426] n 425 above.

[427] Christopher Morris (ed), *Contemporary Philosophy in Focus* (Cambridge University Press 2010).

[428] n 427 above.

‘positive economics is in principle independent of any particular ethical position or normative judgements’.[429] Normative judgements in economics imply ‘*ought*’ propositions, such as desirable social goals, high employment levels, constancy of the value of money, the free movement of goods and factors, and economic and social stability. Normative economics can be defined as the study of criteria for ranking economic situations on the scale of better or worse. A ranking of better or worse would seem to imply an ‘*ought*’. It is therefore possible for normative economics to have an ethical foundation.[430] However, while ethical judgements are normative, not all normative judgements relate to ethics.

In the general equilibrium theory, the assumption is that preferences are what they are, i.e. the theory of revealed preferences, and that they are coordinated for the sake of economic efficiency, purely by economic but not ethical adaptation.[431] There is no space for ethical criteria. The starting assumption for purely economic theory is that in a perfectly competitive market, all agents are rational and self-interested, and all exchanges are mutually beneficial, or a Pareto improvement.[432] In such a world there is no need for mutually beneficial principles of action, or rational morality. The world has become a ‘morally free zone’.[433] The second assumption is that out of self-interest, the actors will fulfil their obligations and will not renege their contracts if more advantageous options come to light than those already contractually agreed.[434] The third assumption is that asymmetries of information make no significant difference, or can be overcome by market participants. The problem of the divergence of self-interest and corporate interest is overcome by means of incentivisation.[435] The assumption is that incentivisation with the promise of sufficiently large economic rewards can lead to hyper-motivation of agents. A good example is the monetary incentives, such as bonuses and share options, which were used intensively by financial institutions prior to the global financial crisis.[436] The fourth assumption

[429] Milton Friedman, *Essays in Positive Economics* (University of Chicago Press 1966).

[430] Edward J. Mishan, *Introduction to Normative Economics* (OUP 1981).

[431] Amartya Sen, *On Ethics & Economics* (Blackwell Publishing 1988).

[432] An economy can be Pareto-optimal, even when some people are rolling in luxury and others are near starvation, as long as the starvers cannot be made better off without cutting into the pleasures of the rich. Therefore, a society or an economy can be Pareto-optimal and still be ‘perfectly disgusting’. Amartya Sen, *Collective Choice and Social Welfare* (Harvard University Press 2018).

[433] While the Pareto approach is helpful in solving some practical resource problems, non-market solutions, such as first-come, first-served, rationing, lottery, and favouritism typically fail the Pareto approach <https://www.businessinsider.com/united-airlines-ceo-major-policy-change-dao-2017-4?r=US&IR=T> accessed 21 September 2022.

[434] n 421 above.

[435] n 421 above.

[436] n 421 above.

is that the expansion of the market will diminish, rather than magnify the divergence of the manager's self-interest from corporate interests; and between corporate and customer interests, through the greater competitive pressure of the enlarged market.[437] Finally, purely economic theory assumes that the increasing commercialisation and shareholder-value orientation of financial institutions, together with the dismantling of their special professionalisation, their traditions and their norms as a profession, does not reduce but actually increases the rationality of the financial sector, because archaic traditions and profession-specific norms are superseded by the competitive pressures of globalised finance.[438]

3.2. Politics, ethics and economics

Amartya Sen argues[439] that there is no scope for dissociating the study of economics[440] from that of ethics and political philosophy.[441] Indeed, this dislocation has substantially weakened modern economics.[442] In his opinion, there are two central ethical issues for economics. The first issue is the ethics-related view of motivation. It is hard to fathom that human beings, the subject matter of economics, could be so unaffected by self-examination. To put emphasis on this is not the same as asserting that people will always act in ways they will themselves morally defend, but only to recognise that ethical deliberation cannot be totally inconsequential to actual human behaviour. The second issue concerns the ethics-related view of social achievement, which relates to Aristotle's 'purpose', which is the achievement of 'eudaimonia', 'flourishing' or the 'human good'. Aristotle relates economics to human ends, referring to its concern with wealth.[443] The study of economics, though related immediately to the pursuit of wealth, is at a deeper level connected to other studies, involving the evaluation and development of more basic goals.[444] Aristotle explains that the life of money-making is one undertaken under compulsion, and wealth is evidently not the good we are seeking, for it is merely useful and for the sake of something

[437] n 421 above.

[438] n 421 above.

[439] n 431 above.

[440] <https://www.nobelprize.org/prizes/economic-sciences/1998/press-release/> accessed 21 September 2022.

[441] Amartya Sen explains that there are two origins of economics: ethics and engineering. The engineering approach is characterised by being concerned primarily with logistic issues rather than with the ultimate ends and such questions as what may foster the 'human good' or 'how should one live'. He explains that neither approaches to economics is pure in any sense. It is a question of balance of the two approaches.

[442] Classical economists, including the moral philosopher Adam Smith, did not accept the divorce between economics and ethics.

[443] Aristotle, *The Nicomachean Ethics*, 1.1, 1094a5 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[444] n 421 above.

else.[445] Therefore, economics ultimately relates to the study of ethics, and political science. Aristotle develops this opinion further in The Politics where he discusses the role of money in human life,[446] and how it is wrong to seek limitless increase in wealth, for those people are eager for life, but not for the good life.[447] Moreover, where enjoyment consists in excess, people look for that skill which produces the excess that is enjoyed and turn their skills into skills of acquiring goods, as though that were the end of everything and everything had to serve that end.[448] However, Aristotle noted some aggregative features of this exercise, when he explains that though it is worthwhile to attain the end merely for one man, it is finer and more godlike to attain it for nation or for city-states.[449] Similarly, Amartya Sen argues that the ethics-related view of social achievement cannot stop the evaluation short at some arbitrary point, such as satisfying 'efficiency'[450] or indeed shareholder value maximisation.[451] Moreover, the assessment has to be more fully ethical, and take a broader view of 'the human good', which is important in the context of modern economics, in particular modern welfare economics.[452] Indeed, for economics to have an ethical foundation, each individual is no longer a utility maximiser, and decisions are made on the basis of what is good or right, which can run counter to the requirements of any utilitarian calculation.[453]

3.3. Ethical relativism

As discussed earlier in this chapter, one of the reasons meta-ethics developed in the twentieth century was the belief that moral philosophy could not establish correct theories about how a person should live. There can be no truth or falsehood about how a person should conduct their life, because different groups in societies and cultures have different moral or ethical codes. The general logical structure of the ethical relativist argument is that different cultures have different moral codes, and therefore, there is no objective truth in morality, right and wrong are only

[445] Aristotle, *The Nicomachean Ethics*, 1.5, 1096a5 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[446] Aristotle, *The Politics*, 1.8-10 (Trevor J Saunders, tr, Penguin Classics 1992).

[447] Aristotle, *The Politics*, 1.9, 1257b40 (Trevor J Saunders, tr, Penguin Classics 1992).

[448] n 447 above.

[449] Aristotle *The Nicomachean Ethics*, 1.2, 1094b (David Ross, tr, Lesley Brown, ed, OUP 2009).

[450] Amartya Sen claims that there is little empirical evidence to support George Stigler's view that 'we live in a world of reasonably well-informed people acting intelligently in pursuit of their self-interests' <https://tannerlectures.utah.edu/_resources/documents/a-to-z/s/stigler81.pdf> accessed 21 September 2022.

[451] John W. Dienhart, 'The Separation Thesis: Perhaps Nine Lives Are Enough: A Response to Joakim Sandberg' (2008) 18 Business Ethics Quarterly 555 <http://www.jstor.com/stable/27673254> accessed 21 September 2022.

[452] n 431 above.

[453] n 431 above.

matters of opinion, and opinions vary from culture to culture.[454] Kara Tan Bhala argues that this logic is flawed.[455] Primarily, the intrinsic weakness or paradox in the ethical relativist argument is the premise that cultural relativism *is* an objective truth. Nevertheless, if we assume that the first premise is correct, the conclusion drawn does not *necessarily* follow. The fact that there are two moral or ethical codes which are different, does not signify that there is no objective truth in morality. Moreover, it signifies that we have not discovered it.[456] A further argument challenges the ethical relativists' premises. However, before we discuss this we need first to distinguish 'descriptive relativism' and 'ethical relativism'. Descriptive relativism refers to assertions that are made about the norms and values of other cultures with the aim of describing and understanding a culture.[457] This is an anthropological inquiry, rather than an ethical one. It does not provide an evaluative or normative opinion. The first assumption is based in descriptive relativism. The exercise of comparing two moral codes uses the empirical method. It does not use ethical inquiry, which is deliberative, and governed by argument and reason. The method of ethics broadly involves providing reasons to support an opinion that an act is either right or wrong, analysing arguments, and justifying principles. Unless an ethical inquiry has been carried out of each of the two different moral codes, rather than simply a descriptive analysis, it will not be possible to conclude that ethical or moral values which underpin those codes are inherently different. If we assume that the cultural relativism argument is valid, we wouldn't be able to criticise ethically grievous acts such as torture, female infanticide and ethnic genocide. Indeed, we wouldn't be able to claim moral progress.[458] For example, if the premise of cultural relativism is correct, ameliorating women's rights in the general struggle for gender equality could not be viewed as progress. In fact, we would have no standards against which to judge our moral or ethical progress.[459]

A final argument responds to the ethical relativists' tendency to provide exceptionally difficult examples, such as abortion or euthanasia, to support their conclusion that 'proof' in ethics is impossible. In reality, however, most ethical issues are far less controversial and complex in everyday life.[460] For example, ethical issues in financial services tend to revolve around the meaning of fair treatment for consumers. While different people may arrive at different conclusions when they assess particular sets of facts or scenarios, it is unlikely that people will

[454] n 207 above.

[455] n 207 above.

[456] n 207 above.

[457] n 207 above.

[458] n 207 above.

[459] n 207 above.

[460] n 207 above.

disagree on the *a priori* principles of fairness. Indeed, very few people would disagree that fairness involves not disadvantaging others, being unbiased, impartial, or neutral in their treatment of others, sharing burdens or benefits equally, or maintaining a proper proportion between benefit and contribution.

3.4. Ethical economic theory

The counter-assumption to the purely economic theory is that our world is not a morally free zone.[461] In real markets, there are public goods and externalities, such as clean air, congestion, and many opportunities for mutually beneficial cooperative or collective action.[462] Moral or ethical principles, in particular the principle of justice, govern these matters. The ethical economy is a theory which recognises ethics as one of the optimisation conditions of the market economy. There are a number of assumptions of the ethical economic theory.[463] Primarily, it assumes that markets in which actors are motivated by self-interest alone do not produce an optimum without recourse to ethical motivation. Secondly, actors acting out of self-interest tend not to fulfil their obligations and breach contracts when more advantageous alternatives than those already agreed in the contracts become apparent. In addition, the sanctions of law, i.e. litigation, are ineffective because breach of contract is barely justiciable, especially in cases of imperfect contracts, and on complex matters where it is impossible to provide evidence. Thirdly, asymmetries of information make a substantial difference, specifically in the finance industry, and can only be overcome with great difficulty by market participants, particularly unsophisticated retail investors and bank customers. The ethical economy theory deems that the divergence of self-interest and corporate interest is a serious problem. It cannot be completely overcome, and will only be alleviated by means of suitable incentives, not perverse incentives. Moreover, the assumption that incentivisation through sufficiently high economic rewards leads to hyper-motivation of actors is also viewed as problematic. This is because financial motivation and professional motivation are not necessarily in harmony. It is arguable that, prior to the global financial crisis, financial institutions made excessive use of monetary incentives, which led to a dominance of the financial institution's interests over customers' interests. Fourthly, ethical economy theory assumes the expansion of the market will magnify the problems mentioned above because false self-interest or the divergence of the manager's self-interest from corporate interests, and between corporate and customer interests, due to the pressure of competition in the enlarged market, can only be diminished if consumers can rely on greater transparency in the financial markets. This is

[461] n 421 above.

[462] n 421 above.

[463] n 421 above.

arguably not the case if the regional rootedness of the banking business based on the tenet that 'every business is local' is in decline.[464] Finally, ethical economy theory has grounds for the assumption that the increasing commercialisation and shareholder-value orientation of financial institutions results in the dismantling of their specific professionalisation, their traditions and their norms as a profession. This has thus reduced the rationality of the financial sector as competitive pressures and the profit opportunities of globalised finance have ousted the traditions and profession-specific norms, without having created any new equivalents to take their place.[465]

4. FINANCIAL ETHICS

4.1. Modern Finance Theory

Since the adoption of positivist economic theory, there has been little or no space for ethical deliberation in the theory and practice of finance. Modern Finance Theory or MFT is the orthodox model of finance, which is based on neo-liberal economics. The MFT essentially comprises three models – the Efficient Market Hypothesis, the Capital Asset Pricing Model, and the Options Pricing Theory. MFT makes five major assumptions. Those are that economic agents are always rational, that rational agents are purely self-interested, that they aim only to maximise utility, that utility is distilled to economic utility, i.e. profits, and that rational agents aim to maximise profits.[466] Kara Tan Bhala explains that these started off as mere assumptions, intended to simplify a complex world to develop predictive quantitative models.[467] Moreover, these assumptions fail to reflect the richness and complexity of the real world. There have been numerous experiments which prove that people are not motivated *purely* by economic profit, but by values such as justice, fairness and trustworthiness.[468] Nevertheless, through the passage of time and habitual use, the assumptions have evolved from 'assume', i.e. *assume* agent are rational, self-interested and aim to maximise profits, to, 'is', i.e. agents *are* rational, self-interested and do aim to maximise profits to, 'ought', i.e. agents *ought to be* rational, self-interested and *ought to* aim to maximise profits. Therefore, the assumptions of profit maximisation behaviour and an efficient market have obviated any need for ethical deliberation to resolve ethical questions in theoretical finance. The conventional wisdom has been that markets decide efficiently, and ethics has no purpose in finance. There can be little doubt that

[464] n 421 above.

[465] n 421 above.

[466] Utilitarianism provides the foundation for classical economics. However, it has been argued that conceiving of utility in terms of income and chasing GDP as a proxy for happiness, means that economic policy (and economics) has lost its way. Tim Jackson, *Prosperity Without Growth: Foundations For The Economy Of Tomorrow* (2nd edn, Routledge 2017).

[467] n 207 above.

[468] Kara Tan Bhala, *International Investment Management, Theory, ethics and practice* (Routledge 2016).

MFT has been productive by systemising a broad field, and providing a simple framework. However, since the global financial crisis, the general public, academics, practitioners and the regulators have been questioning the fundamentalism of neo-liberal economics-based finance theory. Indeed, there is a greater openness to ethical deliberations in finance by practitioners, which is being encouraged by the public and civil society.[469]

4.2. The purpose of finance

In The Nicomachean Ethics, Aristotle explains that those who possesses virtue and perform the right acts do so for the purpose of seeking 'eudaimonia', 'flourishing' or a 'well-lived life'. Similarly, natural law theory adopts Aristotle's thesis that everything should fulfil its natural purpose[470], and that by fulfilling our purpose we achieve the supreme good. On this basis, to re-establish ethics in finance, we must first consider what is the purpose of finance. However, while a virtuous purpose is more likely to encourage virtuous acts, it does not guarantee that every act will be good. If we follow Aristotle's thesis to its end, the purpose of finance is the ultimate 'eudaimonia' or 'flourishing' of society.[471] How then should finance be repurposed to serve the human good? In The Politics, Aristotle states it is wrong to seek limitless increase in wealth, for those people are eager for life, but not for the good life.[472] In this respect, he criticises usury because this form of earning of wealth is the most contrary to nature.[473] Financial gains from usury are born from money, not from trade or exchange, which is the whole purpose of money. Meanwhile, usury artificially increases the amount of the money in circulation, which he considered unnatural.[474] Indeed, following the global financial crisis, it has been suggested that the purpose of the financial services industry should be not *only* to maximise the wealth of its shareholders, but to enrich society by supporting economic activity, creating value and

[469] n 468 above. Geoffrey M. Hodgson, 'Evolution and Moral Motivation in Economics' in White M D (ed) *The Oxford Handbook of Ethics and Economics* (OUP 2019).

[470] n 199 above.

[471] Aristotle, *The Nicomachean Ethics*, 1.1, 1094a15 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[472] Aristotle, *The Politics*, 1.9, 1257b40 (Trevor J Saunders, tr, Penguin Classics 1992).

[473] Aristotle, *The Politics*, 1.10, 1258b (Trevor J Saunders, tr, Penguin Classics 1992). In addition Roman philosophers such as Cato, Cicero and Seneca condemned the taking of interest and described it as an inhuman practice.

[474] In addition to ancient Western philosophy, we may find condemnation of usury in Hinduism, Buddhism, Judaism, Christianity and Islam, in the works of the moral philosopher Adam Smith, and the modern economist John Maynard Keynes. The rationale for rejecting usury is that it constitutes unearned income, it exploits the vulnerable, and ultimately leads to an inequitable distribution of wealth.

employment, and ultimately to improve the well-being of people.[475] Similarly, Colin Mayer argues that the inadequacy of financial regulation is its failure to identify and promote the purpose of the financial services industry.[476] Where regulation is purposeful, it can be stunningly successful.[477] The purpose of the financial system should be to stimulate inclusive sustainable growth, development, investment, and innovation. Meanwhile, the performance of financial regulation should be judged against these criteria rather than its success in correcting market imperfections and failures, which derive from the pursuit of market efficiency. On this basis, there should be a fundamental re-examination of financial regulation, beginning with careful reflection of the purpose of a financial activity, its functions, risks, requirements for success, and measures of performance.[478]

4.3. The social licence for finance

The 'social licence for financial markets' is a teleological mechanism, which focuses upon social purpose and justice as the ultimate end.[479] David Rouch argues that the 'social licence for financial markets' will assist us in repositioning the financial markets away from self-interest towards mutuality of purpose, between the strategies of financial institutions and the social goals of the community.[480] For example, making finance available to serve the needs of the real economy, supporting SMEs, and addressing wider concerns such as environmental and sustainability issues. Therefore, the social licence for financial markets reminds us of the fundamental relationship between finance and society. Similarly, the former Governor of the Bank of England, Mark Carney, related the 'social licence for financial markets' to the underlying purpose of financial activity, where markets are not ends in themselves, but powerful means for

---

[475] Christine Lagarde, Managing Director, International Monetary Fund, 'The Role of Personal Accountability in Reforming Culture and Behavior in the Financial Services Industry', at the New York Federal Reserve in 2015 <https://www.imf.org/en/News/Articles/2015/09/28/04/53/sp110515> accessed 21 September 2022.

[476] Colin Mayer, *Prosperity: Better Business Makes the Greater Good* (OUP 2018).

[477] Colin Mayer provides the example of successful efforts in Kenya to improve financial inclusion in a remarkably short space of time.

[478] n 476 above.

[479] Emma Borg, 'The thesis of "doux commerce" and the social licence to operate framework' (2021) 30 Business Ethics: A European Review 412 <https://doi.org/10.1111/beer.12279> accessed 21 September 2022. Pamela Hanrahan, 'Corporate governance, financial institutions and the "social licence"' (2016) 10(3) Law and Financial Markets Review 123 <http://dx.doi.org/10.1080/17521440.2016.1243878> accessed 21 September 2022.

[480] David Rouch, 'The social licence for financial markets, written standards and aspiration' in C Russo, R Lastra, W Blair (eds), *Research handbook on law and ethics in banking and finance* (Edward Elgar Publishing 2019).
David Rouch, *The Social Licence for Financial Markets, Reaching for the End and Why it Counts* (Palgrave Macmillan 2019).

prosperity and security for everyone.[481] This description of the social licence positions financial markets activity within the context of the need to realise social goods, i.e. prosperity and security for everyone. The goods can be regarded as social for two reasons. Primarily, because the outcomes benefit society as a whole, and secondly, because they can only be realised in a way that relies upon a social framework.[482] Indeed, these social goods would be lost if financial activity is conducted as an end in itself, or detached from its social context. The recognition of a social licence reaches beyond old narratives of finance as a conflictual pursuit of financial self-interest.[483] It acknowledges self-interest and the importance of financial return. However, it also acknowledges that exchange is integral to realising human dignity. The social licence embraces each of these things in a reciprocal balance, with an overriding desire for the wellbeing of others, and aims towards justice as an ultimate end.[484]

4.4. Ethical foundations of financial law

Lastra and Sheppard[485] claim that in order to rediscover the purpose of financial law we need to understand the ethical foundations of financial law. They propose a financial regulatory framework which is based on the exercise of the virtues – justice, prudence, and integrity. They draw from the ethical foundations of the Aristotelian tradition. In particular, the emphasis on the importance of moral virtue, which is the mean between the two vices of excess and deficiency.[486] While justice is the greatest of virtues, there are two vices on the extremes of justice. Those are 'pleonexia', which involves the desire for gain in circumstances which involves taking from others, and an unnamed vice, which involves the lack of equality in distribution and correction.[487] 'Pleonexia' denotes 'graspingness' or an excessive desire for more than one needs or deserves, which motivates injustice, and violates canons of distributive fairness within self-conscious

[481] n 480 above.

[482] n 480 above.

[483] n 480 above.

[484] n 480 above.

[485] Rosa M Lastra and Marcelo J Sheppard, 'Ethical foundations of financial law' in C Russo, R Lastra, W Blair (eds), *Research handbook on law and ethics in banking and finance* (Edward Elgar Publishing Limited 2019).

[486] Aristotle, *The Nicomachean Ethics*, 2.6, 1107a10 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[487] Aristotle, *The Nicomachean Ethics*, 5.1, 1129a30, 5.2, 1130b5, 30 (David Ross, tr, Lesley Brown, ed, OUP 2009). David Keyt, 'Injustice and Pleonexia in Aristotle: A Reply to Charles Young' (1989) 27 The Southern Journal of Philosophy 251.

communities.[488] Lastra and Sheppard[489] assert that acting with 'pleonexia' has a wide impact on society as a whole. When financial sector actors behave with 'pleonexia' they take a share that belongs to others, to the detriment of the common good. To withstand this temptation financial actors need to have temperance.[490] Lastra and Sheppard maintain that the implications of this for modern financial markets remain relevant. While the social status of bankers and financiers has been elevated, the exercise of humility and magnanimity, which derive from temperance, is required to serve clients and the society as a whole.[491] Secondly, Lastra and Sheppard maintain that the integrity principle should inspire positive ethical financial standards.[492] Integrity, which means acting honestly, is horizontal to every virtue.[493] Thirdly, Lastra and Sheppard claim that prudence or 'practical wisdom'[494] is necessary, which is the disposition to guide one's choices and actions by practical reasonableness.[495] Therefore, it is informed and directed at every stage by every relevant practical principle and moral norm.[496]

5. INTEGRATED ETHICAL REGULATORY FRAMEWORK

As discussed in Chapter 1 *The regulatory financial system in the UK* the purpose of financial regulation is to correct market imperfections and failures, i.e. information asymmetries and externalities to allow for the efficient allocation of resources and improve consumer welfare. Moreover, the markets are special-purpose institutions designed to promote efficiency, embedded within the broader context of a welfare state, which engages in both market-complementing and redistributive policies. Therefore, individuals and companies should follow ethical imperatives such as (a) minimise negative externalities; (b) reduce information asymmetries; (c) not exploit diffusion of ownership; (d) avoid setting up barriers to entry; (e) not oppose regulation which seeks to correct market imperfections; (f) not seek tariffs or other protectionist measures; and (g)

---

[488] Aristotle referred to 'πλεονεξία', romanised as 'pleonexia' and translated as 'graspingness', the major motive for injustice, which is wanting more than one's fair share of goods, or less than one's share of burdens. Ryan Balot, 'Aristotle's Critique of Phaleas: Justice, Equality, and Pleonexia' (2001) Hermes 32 <https://www.jstor.org/stable/4477400> accessed 21 September 2022.

[489] n 485 above.

[490] Aristotle referred to 'ἐγκράτεια', romanised as 'enkrateia' and translated to 'temperance'. Aristotle, *The Nicomachean Ethics* 3.11, 1119a10 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[491] n 485 above.

[492] n 485 above.

[493] John Cottingham, 'Integrity and Fragmentation' (2010) 27 Journal of Applied Philosophy 2 <https://www.jstor.org/stable/24355963> accessed 21 September 2022.

[494] This is translated from the Greek word 'φρόνησῐς', or the romanised 'phronesis'.

[495] Aristotle, *The Nicomachean Ethics*, 6.5, 1140a 25 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[496] John Finnis, *Aquinas: Moral, Political and Legal Theory* (OUP 2004).

not engage in opportunistic behaviour.[497] However, these ethical imperatives are not founded in language of rights and duties, concepts of fairness, the greatest happiness principle, social justice claims, or Kant's Categorical Imperative. They derive from the pursuit of market efficiency. The market will work most efficiently when we prevent market failures, and market failures happen because of imperfections, asymmetries, and externalities. The ultimate purpose of well-functioning markets is the improvement of consumer welfare, which relies upon the utilitarian assessment. However, as discussed previously, there are a number of problems with the utilitarian approach. Prima facie, utilitarianism is a simple ethical theory because it involves only one evaluative judgement, i.e., the morally right action is the one which maximises the most good or the best consequences. However, the complexity of this ethical theory becomes apparent when we realise that we are unable to make this evaluation unless we know what is good or positive, for whom we seek to maximise the most good or best consequences, and whether actions are made right or wrong by their *actual* consequences, or by their *foreseeable* consequences. Furthermore, when financial regulation focuses predominantly upon correcting market imperfections and failures we shift away from deontological, justice theory and virtue-based ethical judgement. In addition, the prevalent utilitarianism underlying much of economic practice neglects concepts such as autonomy, dignity, and rights, reducing them to commodified utilitarian considerations.[498] Therefore, principles of justice are dependent upon, or *subordinate* to utility. For example, a distribution of individual rights will only be just if they maximise total utility. On this basis, individual property rights may be dismissed if they fail to maximise welfare and, more controversially, the practice of slavery will be considered just and morally obligatory if a slave society produces the greatest happiness for the greatest number.[499] Moreover, it is argued that seeking maximum utility will likely result in an unjust social distribution. If income or wealth is unequally distributed, the preference of those with greater incomes will carry more weight that the preferences of those with lesser incomes, because wealthy people would be more prepared to pay a higher price for improving their utility than poor people.

In the UK, the focus of the FCA and PRA is upon risk-based regulation, which shifts the process of compliance away from deontological and virtue ethics approaches, because risk is

[497] Andrew Gustafson, review of 'Morality, Competition, and the Firm: The Market Failures Approach to Business Ethics', Notre Dame Philosophical Reviews <https://ndpr.nd.edu/reviews/morality-competition-and-the-firm-the-market-failures-approach-to-business-ethics/> accessed 21 September 2022.

[498] Mark D White, 'With All Due Respect: A Kantian Approach to Economics' in Mark D White (ed), *The Oxford Handbook of Ethics and Economics* (OUP 2019).

[499] Johan J Graafland, 'Utilitarianism' in Jan Peil and Irene van Staveren (eds), *Handbook of Economics and Ethics* (Edward Elgar 2009). Daniel M Hausman and Michael S McPherson, *Economic Analysis and Moral Philosophy* (Cambridge University Press 1996).

superimposed on ethical judgement.[500] As discussed in Chapter 1 *The regulatory financial system in the UK* the FCA is required to consider the differing degrees of risk involved in different kinds of investment or other transactions.[501] While market failure may lead to consumer detriment and create a prima facie case for regulatory intervention, it will only transpire if the risk of detriment satisfies the FCA's prevailing view of the degree of risk that may be tolerated within the system.[502] Therefore, the FCA's consumer protection objective is measured against their risk-based regulatory approach. Meanwhile, the FCA Principles for Businesses and the PRA Fundamental Rules, represent a body of *a priori*[503] moral principles, which suggest that they are deontological in nature, and not motivated by market-efficiency exigencies, related cost benefit analyses or securing compliance with minimum standards.[504] However, the FCA's conduct of business rules,[505] which augment or amplify the FCA Principles for Businesses in the FCA Handbook, do not have an explicit deontological or virtue-based ethical focus. They are concerned with correcting market failures, which may be caused by lack of competition, information asymmetry, conflicts of interest, externalities and misaligned incentives. Their focus is on mitigating principal-agent problems between sellers and consumers in the markets,[506] and improving market outcomes and consumer welfare.[507] In the financial markets, due to the opaque and complex nature of financial products and services, these distortions tend to be more serious, which explains the specific and detailed rules within the FCA Handbook.[508] Therefore, it is not clear how the high level standards expected of firms and individuals, as set out in the FCA Handbook and PRA Rulebook,[509] are *designed to* operate as part of the regulators' risk-based regulatory approach.[510] As discussed in Chapter 1 *The regulatory financial system in the UK* following the global financial crisis, the FCA and its predecessor, the FSA, imposed an unprecedented number of fines on firms following attempted manipulation of various

[500] Iain MacNeil, 'Rethinking conduct regulation', (2015) 7 Journal of International Banking and Financial Law 413. This will be explored further in Chapter 3 *Standards in Banking and Finance*.

[501] FSMA 2000, s 1C(2) *The consumer protection objective*.

[502] n 500 above.

[503] n 214 above.

[504] The FCA Principles for Businesses are deontological in nature as they prescribe duties upon regulated firms.

[505] n 500 above.

[506] Roger J. Van De Bergh and Alessio M. Pacces (eds), *Regulation and Economics: Encyclopedia of Law and Economics* (2nd edn, Edward Elgar Publishing 2012).

[507] n 500 above.

[508] n 500 above.

[509] The FCA Principles for Businesses, and the PRA Fundamental Rules.

[510] This incongruence between high level standards and risk-based regulation may be exacerbated following the introduction of the FCA's consumer duty <https://www.fca.org.uk/publications/policy-statements/ps22-9-new-consumer-duty> and <https://www.fca.org.uk/publication/policy/ps22-9.pdf> accessed 21 September 2022.

benchmarks. The FCA also brought enforcement proceedings against individuals for misconduct regarding those benchmarks. In respect of IRHP misselling, through voluntary agreements with the FCA and its predecessor, the FSA, a number of banks undertook to review their past sales of IRHPs and redress their customers. Therefore, while the UK regulatory system *does* comprise deontological and virtue ethics approaches, deontological and virtue ethics are *subordinate* to exigences of utility maximisation.[511] Consequently, this has hampered the ability of the financial regulatory system to successfully regulate the financial services industry.[512]

In light of these ethical deficiencies, it is recommended that we explore adopting an integrated ethical approach to financial regulation in the UK, which is based upon Kaptein and Wempe's 'Corporate Integrity Model'. The 'Corporate Integrity Model' promotes the simultaneous and balanced use of the three ethical theories – deontology, utilitarianism, and virtue ethics. Similarly, an integrated ethical approach to financial regulation in the UK requires that the traditional ethical theories are applied on a complementary and coherent basis. The integrated ethical framework is based upon four assumptions. Primarily, there is a strict correlation between duty and virtue. Therefore, duty culminates in the pursuit of virtue, and the proper path to virtue is the fulfilment of our duties. Secondly, deontological and virtue ethics-based standards operate as absolute constraints before principles of justice are applied, which are informed by John Rawls' theory of justice. Thus, members of society, ignorant of their own position in society, legislate for principles of equal liberty and equality. Thirdly, deontological, virtue ethics and principles of justice operate as absolute constraints before utilitarianism is applied. In other words, utilitarianism is placed in an ethical hierarchy in which duty, virtue-based ethics and justice standards are considered prior to standards of maximum utility. Indeed, we may find examples of government policymaking which incorporates deontological values in its decision-making procedures. For example, the Bill of Rights restricts the US government from taking actions that prohibit freedom of speech. Similarly, the UK government must ensure that it complies with the public sector equality duty[513] and act compatibly with the European Convention of Human Rights

---

[511] Equally, it is argued that the FCA's consumer duty will be subordinate to utility maximisation principles <https://www.fca.org.uk/publications/policy-statements/ps22-9-new-consumer-duty> accessed 21 September 2022.

[512] It is accepted that there are fundamental elements of the UK regulatory system which reflect a deontological ethical approach. For example, a person is prohibited from conducting regulated business in breach of section 19 *The general prohibition* FSMA 2000, and/or in breach of the restriction on financial promotions in section 21 *Restrictions on financial promotion* FSMA 2000.

[513] The public sector equality duty is a legal obligation from the Equality Act 2010. It requires public bodies, which includes the UK government, to consider the equality implications of their decisions.

(ECHR) rights, which are enshrined in the Human Rights Act (HRA) 1998.[514] Therefore rights and other deontological concepts serve as constraints on policymaking, ensuring that those values are respected while social welfare is promoted within these constraints.[515] Thirdly, the ultimate purpose of the integrated ethical approach to financial regulation is the cultivation of a flourishing and sustainable financial system.[516] Therefore, it should be anchored in the 'social licence for financial markets', focusing upon social purpose by making finance available to serve the needs of the real economy, supporting SMEs, and addressing wider concerns such as the environment and long-term sustainability. As discussed above, there will likely be disagreements about which values should be given lexical priority and which can be traded off to advance others.[517] It is not suggested that we dogmatically follow rules indicating which theory is to be followed over the other. Moreover, we should apply our judgement and practical reason to determine the most appropriate course of action. For example, the deontological theory will be most appropriate where the fundamental rights, or the distribution of rights and obligations among different groups of people are concerned. However, if the wellbeing of society is likely to be impacted, the utilitarian theory would also need to be considered.[518] Finally, we should not lose sight of our general ability to use our reason and think practically. For example, we may adopt a pluralist deontology, which allows for choosing between competing duties. Secondly, we may prefer the augmentation version of virtue ethics, which holds that acting morally includes practising virtue *and* following principles or rules. Indeed, we may conclude that applying a pluralist form of deontology, 'augmentation' virtue ethics and utilitarianism, each of which are anchored in the 'social licence for financial markets', forms a coherent basis for an integrated ethical financial regulatory framework.

[514] Under administrative law, any legislative provisions which disproportionately interfere with ECHR rights protected by the HRA 1998 may be judicially reviewed.

[515] n 407 above.

[516] Colin Mayer argues that the inadequacy of financial regulation is its failure to identify and promote the purposes of the financial services industry.

[517] n 407 above.

[518] Manuel G. Velasquez, *Business Ethics: Concepts and Cases* (7th edn, Pearson 2014).

CHAPTER THREE

STANDARDS IN BANKING AND FINANCE

1. REGULATORY STANDARDS

1.1. High level standards

1.1.1. FCA Principles for Businesses

The FCA Principles are inaugurated in the High Level Standards which are laid out at the very beginning of the FCA Handbook. The FCA Principles are a general statement of the fundamental obligations of all firms authorised by the FCA under the regulatory system.[519] They provide the overarching framework for the regulation of financial services in the UK.[520] The FCA Principles are not expressed in statute however, and derive their authority from the FCA's delegated rule-making powers, which are set out in Part IXA *Rules and Guidance* FSMA 2000. The FCA Principles reflect the FCA's statutory objectives[521] which include the FCA's strategic objective of ensuring that the relevant markets function well; and its operational objectives: (i) the consumer protection objective, which is securing an appropriate degree of protection for consumers; (ii) the integrity objective, which is protecting and enhancing the integrity of the UK financial system; and (iii) the competition objective, which is promoting effective competition in the interests of consumers. In fulfilling its general functions, the FCA is required to have regard to a number of regulatory principles[522], including for example, the need to use resources in the most efficient and economic way, the general principle that consumers should take responsibility for their decisions, the responsibilities of the senior management within financial institutions, and that the regulators should exercise their functions as transparently as possible.

The FCA Principles are contained in PRIN 2.1.1 R *The Principles* as follows:

Integrity	A firm must conduct its business with integrity.
Skill, care and diligence	A firm must conduct its business with due skill, care and diligence.

[519] PRIN 1.1.2 G and DEPP 6.2.14 *Discipline for breaches of the Principles for Businesses* FCA Handbook.
[520] R (BBA) v FSA and others [2011] EWHC 999 (Admin).
[521] PRIN 1.1.2G FCA Handbook.
[522] FSMA 2000, a 3B *Regulatory principles to be applied by both regulators*.

Management and control	A firm must take reasonable care to organise and control its affairs responsibly and effectively, with adequate risk management systems.
Financial prudence	A firm must maintain adequate financial resources.
Market conduct	A firm must observe proper standards of market conduct.
Customers' interests	A firm must pay due regard to the interests of its customers and treat them fairly.
Communications with clients	A firm must pay due regard to the information needs of its clients, and communicate information to them in a way which is clear, fair and not misleading.
Conflicts of interest	A firm must manage conflicts of interest fairly, both between itself and its customers and between a customer and another client.
Customers: relationships of trust	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 judgement.
Clients' assets	A firm must arrange adequate protection for clients' assets when it is responsible for them.
Relations with regulators	A firm must deal with its regulators in an open and cooperative way, and must disclose to the FCA appropriately anything relating to the firm of which that regulator would reasonably expect notice.

The FCA Principles are fundamental to the FCA's authorisation, supervision and enforcement functions. Primarily, the FCA Principles express the main dimensions of the 'fit and proper' standard set in respect of Part 4A permissions[523] to carry on a regulated activity. The 'fit and proper' standard is set out in threshold condition 2E *Suitability* FSMA 2000.[524] Broadly speaking, the FCA threshold conditions represent the minimum conditions for which the FCA is responsible, which a Part 4A applicant or a firm is required to satisfy on an ongoing basis in order to be given and retain Part 4A permission.[525] For example, the FCA may have regard to whether

[523] FSMA 2000, Part 4A *Permission to carry on regulated activities*.

[524] PRIN 1.1.4 G of the FCA Handbook.

[525] COND 1.2.1 G of the FCA Handbook.

a Part 4A applicant or a firm (i) conducts its business with integrity and in compliance with proper standards; (ii) has a competent and prudent management; and (iii) can demonstrate that it conducts its affairs with the exercise of due skill, care and diligence.[526] Therefore, a Part 4A applicant's preparedness and willingness to comply with the FCA Principles is a critical factor in the FCA's decision-making as to whether to grant a Part 4A permission. Meanwhile, a firm's breach of the FCA Principles may call into question whether a firm continues to be 'fit and proper'.[527] On this basis, the FCA may decide to vary or cancel a firm's Part 4A permission.

Moreover, a firm which breaches the FCA Principles will be liable to disciplinary sanctions.[528] However, the FCA may only bring disciplinary proceedings against firms for breaches of the FCA Principles in respect of regulated activities.[529] Meanwhile, Principle 3 *Management and control*, Principle 4 *Financial prudence* and Principle 11 *Relations with regulators* apply to both regulated and unregulated activities. Nevertheless, the FCA may apply any of the FCA Principles when it is concerned about how firms behave outside the regulatory perimeter.[530] This was the case, for example, when the FCA brought enforcement action in respect of the LIBOR manipulation; and in respect of firms' FX practices.[531] However, the burden will be upon the FCA to demonstrate that a firm has not met the standard of conduct required by the Principle in question. For example, in respect of Principle 1 *Integrity*, the FCA will need to demonstrate a lack of integrity in the conduct of a firm's business. In respect of Principle 2 *Skill, care and diligence* a firm will be in breach if it failed to act with due skill, care and diligence in the conduct of its business. In respect of Principle 3 *Management and control* while a firm will not be in breach because it failed to control or prevent unforeseeable risks; a breach will occur if the firm had failed to take reasonable care to organise and control its affairs responsibly or effectively.[532] In respect of Principle 6 *Customers' interests*, Principle 7 *Communications with clients*, Principle 8 *Conflicts of interest*, Principle 9 *Customers: relationships of trust* and Principle 10 *Clients' assets* which impose requirements on firms expressly in relation to their customers, there are likely to be varying degrees in those requirements. For example, what is 'due regard' in Principle

---

[526] COND 2.5.4 G(2) of the FCA Handbook.

[527] PRIN 1.1.4 G of the FCA Handbook.

[528] PRIN 1.1.7 G of the FCA Handbook.

[529] As defined under FMSA 2000, s 22 *Regulated activities* and specified in the Financial Services and Markets Act 2000 (Regulated Activities) Order 2001 2001/544 (the 'RAO').

[530] <https://www.parliament.uk/documents/commons-committees/treasury/Correspondence/2017-19/FCA-powers-perimeter-300118.pdf> accessed 21 September 2022.

[531] In addition to breaches of Principle 3 *Management and control*, the FCA (and its predecessor the FSA) brought disciplinary actions against firms for breaches of Principle 5 *Market conduct*.

[532] PRIN 1.1.7 G of the FCA Handbook.

6 *Customers' interests* and Principle 7 *Communications with clients*; what is 'fairly' in Principle 6 *Customers' interests* and Principle 8 *Conflicts of interest*; what is 'clear, fair and not misleading' in Principle 7 *Communications with clients*; what is 'reasonable care' in Principle 9 *Customers: relationships of trust*; or what is 'adequate' in Principle 10 *Clients' assets* will depend on the characteristics of the customers concerned.[533] For example, the information needs of a professional client or eligible counterparty will be different from the requirements of a retail client which is afforded the highest level of regulatory protection under the regulatory system. The FCA Principles are also relevant to the FCA's powers of information-gathering and investigations,[534] and provide a basis on which the FCA may apply to a court for an injunction or restitution order; or require a firm to make restitution[535] to its customers.[536] However, breaches of the FCA Principles do not give rise to a right of action by a private person under section 138D *Actions for damages* FSMA 2000.[537]

1.1.2. FCA Senior Management Arrangements, Systems and Controls (SYSC)

The SYSC *Senior Management Arrangements, Systems and Controls* ('SYSC') amplifies FCA Principle 3 *Management and control* which requires a firm to take reasonable care to organise and control its affairs responsibly and effectively. All firms are required to comply and monitor compliance with the SYSC. The purposes of SYSC are to encourage firms' directors and senior managers to take responsibility for their firms' arrangements on matters likely to be of interest to the FCA because they impact upon the FCA's functions under FSMA 2000; to encourage firms' responsibility for effective and responsible organisation in specific directors and senior managers; and to create a common platform of organisational and systems and controls requirements for all firms.[538] For example, SYSC 2.1 *Apportionment of Responsibilities* SYSC 2.1.1 R states that a firm must take reasonable care to maintain a clear and appropriate apportionment of significant responsibilities among its directors and senior managers in such a way that it is clear who has which of those responsibilities; and the business and affairs of the firm can be adequately monitored and controlled by the directors, relevant senior managers and governing body of the firm. In addition, SYSC 3.1.1 R *Systems and controls* requires a firm to take reasonable care to establish and maintain such systems and controls as are appropriate to its

[533] PRIN 1.2.1 G of the FCA Handbook.

[534] FSMA 2000, Part XI *Information Gathering and Investigations*.

[535] FSMA 2000, Part XXV *Injunctions and Restitution*.

[536] <https://www.fca.org.uk/publication/final-notices/vanquis-bank-limited-2018.pdf> accessed 21 September 2022.

[537] PRIN 3.4.4 R of the FCA Handbook.

[538] SYSC 1.2 *Purpose*.

business. Furthermore, SYSC 4.1 *General requirements* requires a firm to have robust governance arrangements, which include a clear organisational structure with well defined, transparent and consistent lines of responsibility; effective processes to identify, manage, monitor and report the risks it is or might be exposed to; and internal control mechanisms, including sound administrative and accounting procedures and effective control and safeguard arrangements for information processing systems, or to meet similar types of governance requirements.[539]

1.1.3. COCON Code of Conduct

The Code of Conduct for Staff sourcebook (COCON) forms an integral part of the Senior Managers & Certification Regime (SM&CR), together with the senior managers' regime (SMR) and the Certification Regime, which were introduced to replace the Approved Persons' Regime (APER).[540] The SMR focuses on individuals performing a senior management function specified by the FCA or the PRA, and imposes new accountability obligations on the most senior decision makers in banks or investment firms. For example, section 66A(5) FSMA 2000 introduces a new duty of responsibility upon senior managers within all firms which enables the FCA to bring disciplinary action for misconduct. The Certification Regime applies to all employees of relevant firms who are not senior managers who could pose a risk of significant harm to the firm, its reputation or any of its customers. Under sections 63E and 63F FSMA 2000 a firm should not permit an employee to carry out certification functions unless it has issued them with a certificate, which is valid for one year. The firm will have to renew the certificate if the employee is to carry on performing the function, however, a firm may not issue or renew a certificate unless it is satisfied that the person is 'fit and proper'. Meanwhile, the conduct rules are high-level requirements that apply to a person in the scope of the SMR and the Certification Regime. In summary, the COCON contains both 'individual conduct rules' and 'senior manager rules', which broadly reflect the current FCA Principles and the Statements of Principle for Approved Persons as follows:

COCON 2.1 Individual conduct rules	COCON 2.2. Senior manager conduct rules

[539] Richard Hay and Sophia Le Vesconte 'Financial Regulation' in Charles Kerrigan (ed), *Artificial Intelligence Law and Regulation*, (Edward Elgar 2022).

[540] The SM&CR was implemented by the Financial Services (Banking Reform) Act 2013 ('2013 Act') and the Bank of England and Financial Services Act 2016 ('2016 Act').

Rule 1: You must act with integrity	SC1: You must take reasonable steps to ensure that the business of the firm for which you are responsible is controlled effectively
Rule 2: You must act with due skill, care and diligence	SC2: You must take reasonable steps to ensure that the business of the firm for which you are responsible complies with the relevant requirements and standards of the regulatory system
Rule 3: You must be open and cooperative with the FCA, the PRA and other regulators	SC3: You must take reasonable steps to ensure that any delegation of your responsibilities is to an appropriate person and that you oversee the discharge of the delegated responsibility effectively
Rule 4: You must pay due regard to the interests of customers and treat them fairly	SC4: You must disclose appropriately any information of which the FCA or PRA would reasonably expect notice
Rule 5: You must observe proper standards of market conduct.	

A firm is required to report breaches of the COCON to the FCA under section 64C FSMA 2000.

1.1.4. Statements of Principle and Code of Practice for Approved Persons (APER)

APER explains the standards of behaviour that the FCA expects of approved persons, which are those individuals performing key roles currently in the approved persons regime whom the FCA has individually approved. In light of the SM&CR, in practice, these rules apply to appointed representatives only. An appointed representative is generally an individual who carries on regulated activities, and acts on behalf of a firm that is authorised directly by the FCA or the PRA.

The APER Statements of Principles are set out as follows:

Statement of Principle 1	An approved person must act with integrity in carrying out his accountable functions.
Statement of Principle 2	An approved person must act with due skill, care and diligence in carrying out his accountable functions.
Statement of Principle 3	An approved person must observe proper standards of market conduct in carrying out his accountable functions.
Statement of Principle 4	An approved person must deal with the FCA, the PRA and other regulators in an open and cooperative way and must disclose appropriately any information of which the FCA or the PRA would reasonably expect notice.
Statement of Principle 5	An approved person performing an accountable higher management function must take reasonable steps to ensure that the business of the firm for which they are responsible in their accountable function is organised so that it can be controlled effectively.
Statement of Principle 6	An approved person performing an accountable higher management function must exercise due skill, care and diligence in managing the business of the firm for which they are responsible in their accountable function.
Statement of Principle 7	An approved person performing an accountable higher management function must take reasonable steps to ensure that the business of the firm for which they are responsible in their accountable function complies with the relevant requirements and standards of the regulatory system.

1.1.5. FCA Fit and Proper test for Employees and Senior Personnel (FIT)

The purpose of FIT is to set out the criteria that a firm should consider when assessing the fitness and propriety of a candidate whom the firm is proposing to put forward for approval as an FCA-approved senior manager function (SMF) manager; the continuing fitness and propriety of a person approved to perform the function of an FCA-approved SMF manager; the fitness and propriety of a person whom the firm is proposing to certify to perform an FCA certification function; and the continuing fitness and propriety of a person whom the firm has certified to perform an FCA certification function. The FCA will have regard to a number of factors when assessing the fitness and propriety of a person to perform a particular controlled function.

However, the most important considerations will be the person's honesty, integrity and reputation; competence and capability; and financial soundness. In assessing fitness and propriety, the FCA will also take account of the activities of the firm for which the controlled function is to be performed, the permission held by that firm and the markets within which it operates.

1.1.6. FCA Training and Competence (TC)

The TC Sourcebook within the FCA Handbook applies to a firm where its employees carry on certain activities, including designated investment business, for retail clients, customers or consumers. TC 2.1.1 R *Assessment of competence and supervision* requires a firm to not assess an employee as competent to carry on certain activities for retail clients, customers or consumers until the employee has demonstrated the necessary competence to do so and has attained, where appropriate, an appropriate qualification. TC 2.1.2 R *Assessment of competence and supervision* requires a firm not to allow an employee to carry on certain activities for retail clients, customers or consumers without appropriate supervision. In the TC sourcebook, competence means having the skills, knowledge and expertise needed to discharge the responsibilities of an employee's role. This includes achieving a good standard of ethical behaviour also.

1.1.7. FCA General Prudential Sourcebook (GENPRU)

The GENPRU of the FCA Handbook amplifies Principle 4 *Financial prudence* which requires a firm to maintain adequate financial resources. For example, while Principle 4 *Financial prudence* requires a firm to maintain adequate financial resources, GENPRU 1.2 *Adequacy of financial resources* augments Principle 4 *Financial prudence*, which is concerned with the adequacy of the financial resources that a firm is required hold in order to meet its liabilities as they fall due.[541] In particular, GENPRU 1.2.26 R *Requirement to have adequate financial resources* requires a firm to maintain at all times overall financial resources, including capital resources and liquidity resources, which are adequate, both as to amount and quality, to ensure that there is no significant risk that its liabilities cannot be met as they fall due. In addition, GENPRU 1.2.30 R *Systems, strategies, processes and reviews* requires a firm to have in place sound, effective and complete processes, strategies and systems to assess and maintain on an ongoing basis the amounts, types and distribution of financial resources, capital resources and internal capital that it considers adequate to cover the nature and level of the risks to which it is or might be exposed.

[541] GENPRU 1.2.13G of the FCA Handbook.

1.1.8. PRA Fundamental Rules

Similar to the FCA Principles, the PRA Fundamental Rules provide the basis of the PRA's rules, with the remainder of the PRA Rulebook amplifying their core expectations. The PRA Fundamental Rules are not expressed in statute, and derive their authority from the PRA's delegated rule-making powers, which are set out in Part IXA *Rules and Guidance* FSMA 2000. The PRA's Fundamental Rules are high level rules that collectively act as an expression of the PRA's general objective of '*promoting the safety and soundness*' of regulated firms.[542] The PRA requires firms to ensure that they comply with the Fundamental Rules, together with all applicable PRA rules, as set out in the PRA Rulebook. The PRA's Fundamental Rules are replicated in each of the PRA's sector rulebooks with the exception of the non-authorised persons sector as follows:

Fundamental Rule 1	A firm must conduct its business with *integrity*.[543]
Fundamental Rule 2	A firm must conduct its business with *due skill, care and diligence*.
Fundamental Rule 3	A firm must act in a prudent manner.
Fundamental Rule 4	A firm must at all times[544] *maintain adequate financial resources*.
Fundamental Rule 5	A firm must have effective[545] *risk strategies and risk management systems*.
Fundamental Rule 6	A firm must *organise and control its affairs responsibly and effectively*.

[542] Section 2B *The PRA's general objective* FSMA 2000.

[543] The Fundamental Rules which are common to the FCA Principles have been underlined and italicised.

[544] The inclusion of '*at all times*' is in line with the requirements on firms in the Capital Requirements Directive (CRD IV) and Solvency II requirements. It is also distinguishable from the FCA Principle 4 *Financial prudence* in light of this additional wording. Policy Statement PS5/14 The PRA Rulebook (2014) <https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/policy-statement/2014/ps514.pdf?la=en&hash=B77168C3F735E3917AF867CB63F732B5457890A3> accessed 21 September 2022.

[545] FCA Principle 3 *Management and control* is distinguishable as it requires a firm to take *reasonable care* to organise and control its affairs responsibly and effectively, with adequate risk management systems.

Fundamental Rule 7	A firm must *deal with its regulators in an open and co-operative way, and must disclose to the PRA appropriately anything relating to the firm of which the PRA would reasonably expect notice*.
Fundamental Rule 8	A firm must prepare for resolution so, if the need arises, it can be resolved in an orderly manner with a minimum disruption of critical services.

The Fundamental Rules apply with respect to the carrying on of regulated activities. However, Fundamental Rules 3, 4, 5, 6, 7, in so far as they relate to disclosing to the PRA, and Fundamental Rule 8 also apply with respect to the carrying on of unregulated activities. However, for Fundamental Rules 5, 6 and 8, this is only in a prudential context.

1.1.9. PRA General Organisational Requirements

In a similar vein to the FCA's SYSC *Senior Management Arrangements, Systems and Controls*, Rule 2.1 *General Requirements* of the PRA Rulebook also require a firm to have robust governance arrangements, which include a clear organisational structure with well defined, transparent and consistent lines of responsibility, effective processes to identify, manage, monitor and report the risks it is or might be exposed to, and internal control mechanisms, including sound administrative and accounting procedures and effective control and safeguard arrangements for information processing systems. Rule 5.1 *Management Body* requires a firm's management body to have accountability for the implementation of governance arrangements that ensure effective and prudent management of the firm. Meanwhile, Rule 5.2 requires a firm to ensure that the members of the management body of the firm (a) are of sufficiently good repute; (b) possess sufficient knowledge, skills and experience to perform their duties; (c) possess adequate collective knowledge, skills and experience to understand the firm's activities, including the main risks; (d) reflect an adequately broad range of experiences; (e) commit sufficient time to perform their functions in the firm; and (f) act with honesty, integrity and independence of mind to effectively assess and challenge the decisions of senior management where necessary and to effectively oversee and monitor management decision-making.

1.1.10. PRA Fitness and Propriety

Rules 2.1 and 2.2 *Fitness and Propriety* of the PRA Rulebook require a firm not to make a PRA senior management approval application or issue a certification in relation to a person unless it is satisfied that person is fit and proper to perform the PRA senior management function or

certification function to which the application relates. In deciding whether a person is fit and proper a firm must be satisfied that the person: (a) has the personal characteristics (including being of good repute and integrity); (b) possesses the level of competence, knowledge and experience; (c) has the qualifications; and (d) has undergone or is undergoing all training required to enable them to perform their function effectively and in accordance with any relevant regulatory requirements, including those under the regulatory system, and to enable sound and prudent management of the firm.

1.2. Conduct standards

1.2.1. The FCA Conduct of Business Sourcebook rules

While the FCA Principles provide the overarching source of obligations, they may be 'best understood as the ever present substrata' to which the specific rules contained in the Business Standards of the FCA Handbook, including the Conduct of Business Sourcebook (COBS) are added.[546] The COBS rules are therefore subject to the wider application of the FCA Principles and do not exhaust the requirement for firms to comply with the FCA Principles.[547]

There are five Conduct of Business Sourcebooks (COBS), which are set out in the Business Standards of the FCA Handbook. Those are the COBS; the ICOBS *Insurance*;[548] the MCOB *Mortgages and Home Finance*;[549] the BCOBS *Banking*;[550] and the CMCOB *Claims Management*.[551] This chapter will focus on the COBS which is the overarching and most significant of the Conduct of Business Sourcebooks. The COBS was introduced in its amended form on 1 November 2007, following the UK implementation of the Markets in Financial Instruments Directive (MiFID).[552] It was subsequently amended on 3 January 2018 following the UK implementation of MiFID II.[553] Broadly, the COBS sets out comprehensive rules and

[546] R (BBA) v FSA and others [2011] EWHC 999 (Admin) 162.

[547] n 546 above 166.

[548] The ICOBS applies to non-investment business of insurers.

[549] The MCOB applies to firms conducting regulated mortgage activities and home finance.

[550] The BCOBS applies to firms that accept deposits from banking customers.

[551] The CMCOB sets out the detailed obligations that are specific to regulated claims management activities and activities connected to those activities carried on by firms.

[552] MiFID: Directive 2004/39/EC on markets in financial instruments (OJ L145/01). The COBS replaced the Conduct of Business rules ('COB'), which were introduced to implement the Investment Services Directive 93/22/EEC.

[553] MiFID II: Directive 2014/65/EU on markets in financial instruments (OJ L173/349).

guidance on how firms which accept deposits, conduct designated investment business,[554] and carry on long-term insurance business in relation to life policies are required to treat their customers. The COBS distinguishes three categories of client – retail clients; professional clients; and eligible counterparties.[555] The purpose of these categories is to define the level of protection which a firm must provide to those clients. For example, retail clients are considered the least experienced, knowledgeable and sophisticated investors, and have the highest level of regulatory protection. Meanwhile, both professional clients and eligible counterparties have less regulatory protections as they are considered more experienced, knowledgeable and sophisticated, and more able to assess their own risk.[556] Unlike the FCA Principles, a breach of the COBS rules does give rise to a right of action by a private person under section 138D *Actions for damages* FSMA 2000.[557]

Primarily, COBS 2 *Conduct of business obligations* COBS 2.1.1R *Acting honestly, fairly and professionally* requires a firm to act *honestly, fairly and professionally* in accordance with the best interests of its client. This is also known as the '*client's best interests rule'*. Claims typically involve arguments that a firm has breached the client's best interests rule on the basis that it placed its own interests before those of the claimants, with the motive of making significant profits, while exposing the claimants to risks which were not adequately disclosed. However, the English Courts have construed this provision narrowly. For example, it has been held that where a retail client has engaged in non-advised or execution only transactions,[558] COBS 2.1.1R *Acting honestly, fairly and professionally* does not impose on a firm the duty to prevent a retail client from engaging in transactions which the firm has assessed is appropriate for the client under COBS 10 *Appropriateness*. Indeed, to interpret the provision in this manner would be to construe it as imposing a duty significantly in excess of what is the appropriate degree of protection identified in section 1C *The consumer protection objective* FSMA 2000.[559] Secondly, COBS 2.1.2 R *Exclusion of liability* states that a firm must not, in any communication relating to designated investment business seek to exclude or restrict; or rely on any exclusion or restriction

---

[554] Designated investments include the activities which are specified in the RAO, which are carried on by way of business.

[555] COBS 3.4 *Retail clients*, COBS 3.5 *Professional clients*, and COBS 3.6 *Eligible counterparties*.

[556] MiFID II introduced new provisions which sought to increase regulatory protections for local or municipal public bodies.

[557] Section 138D(2) *Actions for damages* FSMA 2000.

[558] An 'execution-only transaction' is a transaction executed by a firm upon the specific instructions of a client where the firm does not give advice on investments relating to the merits of the transaction. <https://www.handbook.fca.org.uk/handbook/glossary/?starts-with=E> accessed 21 September 2022.

[559] Parmar v Barclays Bank Plc [2018] EWHC 1027; and Quinn v IG Index Limited [2018] EWHC 2478.

of; any duty or liability it may have to a client under the regulatory system. COBS 2.1.3 G (1) states that in order to comply with the client's best interests rule, a firm should not in any communication to a retail client relating to designated investment business seek to exclude or restrict, or rely on any exclusion or restriction of any duty or liability it may have to a client other than under the regulatory system, unless it is *honest, fair and professional* for it to do so.[560] These provisions prevent a firm from creating an artificial basis for a relationship, if the reality is different. For example, if a firm is providing advice, having a disclaimer or statement which in effect states that he is not to be regarded as providing advice, with the effect that COBS 9 *Suitability* does not apply, will be void.[561] Thirdly, COBS 2.2.1 R *Information disclosure before providing services* states that a firm must provide appropriate information in a comprehensible form to a client about the firm and its services, designated investments and proposed investment strategies, including appropriate guidance on and warnings of the risks associated with investments in those designated investments, or in respect of particular investment strategies, and costs and associated charges, so that the client is reasonably able to understand the nature and risks of the service and of the specific type of designated investment that is being offered and, consequently, take investment decisions on an informed basis.[562]

Fourthly, COBS 4 *Client communications, including financial promotions,* COBS 4.2.1R *The fair, clear and not misleading rule* requires a firm to ensure that a communication or a financial promotion is fair, clear and not misleading.[563] COBS 4.2.6R provides that if a firm takes reasonable steps to ensure it complies with the fair, clear and not misleading rule in relation to a communication or financial promotion, a breach of that rule does not give rise to a right of action under section 138D *Actions for damages* FSMA 2000. Fifthly, COBS 9 *Suitability*[564] applies to a firm which either makes a *personal recommendation* to a retail client in relation to a designated investment; or manages investments of a retail client. A *personal recommendation* means a recommendation that is advice on investments, in particular advice on the merits of the client buying, selling, subscribing for, exchanging, redeeming, holding or underwriting a particular

---

[560] The designation 'R' after a provision in the COBS denotes a 'Rule', and the designation 'G' denotes Guidance. COBS 2.1.3 G is guidance and is not binding.

[561] *Parmar* (n 559 above) 133.

[562] However, the English Courts have held that even where a firm breaches this provision, no loss would flow from this breach where the client has demonstrated an understanding of the nature, calculation and magnitude of relevant risks, costs or associated charges. *Parmar* (n 559 above) 228.

[563] However, the English Courts have held that even where a firm breaches this provision, no loss would flow from this breach where the client has demonstrated an understanding of the nature, calculation and magnitude of relevant risks, costs or associated charges. *Parmar* (n 559 above) 228.

[564] COBS 9A *Suitability* applies to MiFID and insurance-based investment products provisions.

investment which is a security, a structured deposit or a relevant investment which is presented as suitable for the person to whom it is made; or based on a consideration of the circumstances of that person.[565] COBS 9.2.1 R *Assessing suitability: the obligations* requires a firm to take reasonable steps to ensure that a personal recommendation is suitable for its client, having obtained the necessary information about the client's investment experience, financial situation and investment objectives. COBS 9.2.2 R *Assessing suitability: the obligations* requires a firm to obtain from the client such information as is necessary to understand the essential facts about him and have a reasonable basis for making any personal recommendation.[566] While the requirement to ensure suitability only applies where a firm has made a '*personal recommendation*' under COBS 9 *Suitability*, in the case of non-advised sales, i.e. where the firm does not make a personal recommendation, COBS 10 *Appropriateness*[567] requires the firm to assess that the product or service offered or demanded is appropriate. COBS 10.2.1 R *Assessing appropriateness: the obligations* requires a firm to ask the client to provide information regarding their 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. Secondly, 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. COBS 10.2.2 R provides that the information regarding a client's knowledge and experience in the investment field includes, to the extent appropriate to the nature of the client, the nature and extent of the service to be provided and the type of product or transaction envisaged, including their complexity and the risks involved, information on the types of service, transaction and designated investment with which the client is familiar, the nature, volume, frequency of the client's transactions in designated investments and the period over which they have been carried out, and the level of education, profession or relevant former profession of the client. Ultimately, the assessment of whether the product or service offered or demanded is appropriate, depends entirely on the accuracy of the information provided by the client.[568] COBS 10.3.1R *Warning the client* requires a firm to warn the client if

[565] PERG 8.30B.2 *Basic definition of personal recommendation*.

[566] The English Courts have held that the mere giving of information without 'a value judgment'; or an 'an element of opinion', or 'some advice on the merits' will not constitute a personal recommendation. Therefore COBS 9 will not apply. *Parmar* (n 559 above) 118. Moreover, even in circumstances where there is a breach of COBS 9.2.2 R *Assessing suitability: the obligations*, where the firm has failed to take reasonable steps to ensure that a personal recommendation was suitable for the client, the English Courts have held that no loss would flow where the client fails to prove that the loss suffered was as a result of the breach of COBS 9.2.1 R *Assessing suitability: the obligations*. Zaki v Credit Suisse [2011] EWHC 2422.

[567] COBS 10A *Appropriateness (for non-advised services)* applies to MiFID and insurance-based investment products provisions.

[568] Quinn v IG Index Limited [2018] EWHC 2478 at 26.

on the basis of the information received to enable it to assess appropriateness, a firm considers that the product or service is not appropriate to the client. COBS 10.4.1 R *Assessing appropriateness: when it need not be done* states that a firm is not required to assess appropriateness if the service consists of execution only transactions.[569]

Finally, COBS 14 *Providing product information to clients,* COBS 14.3.2R *Providing a description of the nature and risks of designated investments* requires a firm to provide a general description of the nature and risks of designated investments, considering the client's categorisation as either a retail client or a professional client. That description should explain the nature of the specific type of designated investment concerned, as well as the risks particular to that specific type of designated investment, in sufficient detail to enable the client to take investment decisions on an informed basis.[570]

1.2.2. PRA Conduct Standards

Rule 3.1 of the PRA Rulebook *Fitness and Propriety Conduct Standards* states that a firm must contractually require any PRA approved person to (a) act with integrity; (b) act with due skill, care and diligence; (c) be open and co-operative with the FCA, the PRA and other regulators; and (d) disclose appropriately any information to the FCA or PRA which they would reasonably expect notice. Rule 3.2 of the PRA Rulebook states that a firm must contractually require any PRA approved person to: (a) take reasonable steps to ensure that the business of the firm for which they are responsible is controlled effectively; (b) take reasonable steps to ensure that the business of the firm for which they are responsible complies with relevant requirements and standards of the regulatory system; and (c) take reasonable steps to ensure that any delegation of their responsibilities is to an appropriate person and that they oversee the discharge of the delegated responsibility effectively.

1.3. Other regulatory standards

[569] Moreover, even in circumstances where a firm has breached COBS 10 *Appropriateness* by failing to carry out an appropriateness assessment or provide a warning to the client that the product or service is not appropriate, the client would still need to prove that his losses were caused by those breaches. *Quinn* (n 568 above) 40.

[570] However, even where a firm breaches COBS 14.3.2 R, no loss would flow from this breach where the client has demonstrated an understanding of the nature, calculation and magnitude of relevant risks, costs or associated charges. *Parmar* (no 559 above) 228.

1.3.1. Market manipulation

There are three separate misleading offences which are set out in Part 7 of the Financial Services Act 2012. Those are making false or misleading statements,[571] creating false or misleading impressions,[572] and making false or misleading statements or creating a false or misleading impression in relation to specified benchmarks.[573] It is a criminal offence for a person to make a statement that they know is false[574] or misleading[575] in a material respect,[576] or make a statement that is false or misleading in a material respect, being reckless as to whether it is, and dishonestly[577] conceal any material facts, whether in connection with a statement made by that person or otherwise.[578] A person commits an offence if they make the statement or conceal the facts with the intention of inducing, or is reckless as to whether making it or concealing them may induce, another person to enter or offer to enter into, or refrain from entering or offering to enter into, a relevant agreement,[579] or exercise, or refrain from exercising any rights conferred by a relevant investment.[580] A person commits a criminal offence if they act or engage in any course of conduct which creates a false or misleading impression as to the market in, or the price or value of, a relevant investment[581] in order to induce another person to acquire, dispose of,

[571] Financial Services Act 2012, s 89.

[572] Financial Services Act 2012, s 90.

[573] Financial Services Act 2012, s 91.

[574] A statement is false if it asserts something that is not true.

[575] Whether a statement is misleading depends on who it is made to, or is likely to be communicated to, because different people may draw different inferences from the same statement.

[576] The court must look at the purpose for which the statement is asserted, or for which a person is led to infer it. The requirement must therefore be applied in relation to the investment purpose for which Financial Services Act 2012, s 89(1) requires the statement to be made.

[577] The test for dishonesty in criminal matters provides for a two-stage test to be considered by the tribunal of fact. Firstly, what was the defendant's actual state of knowledge or belief as to the facts; and irrespective of the defendant’s belief about the facts, whether their conduct dishonest by the objective standards of ordinary decent people. Ivey v Genting Casinos (UK) Ltd t/a Crockford [2017] UKSC 67.

[578] Financial Services Act 2012, s 89(1).

[579] A relevant agreement is an agreement the entering into or performance of which (by either party) constitutes an activity of a specified kind, or one which falls within a specified class of activity of a kind specified in an order made by HM Treasury (Financial Services Act 2012, s 93(3)), and that relates to a relevant investment (Financial Services Act 2012, s 93(5)).

[580] Financial Services Act 2012, s 89(2). Investment includes any asset, right or interest (Financial Services Act 2012, s 93(2)). A relevant investment is an investment of a kind specified in an order made by HM Treasury (Financial Services Act 2012, s 93(5)). Article 4 of the FSA 2012 (Misleading Statements and Impressions) Order 2013 explains that ‘relevant investments’ are controlled investments within the meaning given in Part 2 of Schedule 1 to the Financial Services and Markets Act (Financial Promotion) Order 2005.

[581] n 580 above.

subscribe for or underwrite the investments or to refrain from doing so, or to exercise or refrain from exercising any rights conferred by the investments, where they know that the impression is false or misleading, or reckless as to whether it is, and they intend[582] to make a gain, or cause loss to another person, or expose another person to the risk of loss. [583] It is a criminal offence for a person (A) to make a false or misleading statement to another person (B) if (a) A makes the statement in the course of arrangements for the setting of a relevant benchmark, (b) A intends that the statement should be used by B for the purpose of setting of a relevant benchmark, (c) A knows that the statement is false or misleading or is reckless as to whether it is.[584] Secondly, it is an offence for a person to do any act or engage in any course of conduct which creates a false or misleading impression as to the price or value of any investment, or as to the interest rate appropriate to any transaction, if (a) the person intends to create that impression, (b) the impression may affect the setting of a relevant benchmark, (c) the person knows that the impression is false or misleading or is reckless as to whether it is, and (d) the person knows that the impression may affect the setting of a relevant benchmark.[585] A person's motive is immaterial for this offence. For example, there is no requirement that the person should have the intention of inducing a person to engage in market activity, or the intention of making a gain or avoiding a loss. The mental element of the offences is knowledge of the false or misleading impression or being reckless as to whether it is.

1.3.2. Causing a financial institution to fail

The Financial Services (Banking Reform) Act 2013 introduced a criminal offence of taking a decision that results in the failure of certain types of financial institution, which include a UK incorporated bank or building society, or a UK investment firm that is regulated by the PRA.[586] Only those individuals performing senior management functions may commit the offence. The conduct for which an individual can be prosecuted is taking a decision on behalf of a financial institution, or failing to prevent a decision being taken on behalf of a financial institution, where the decision leads to the failure of the financial institution or another financial institution in the same group as the financial institution. In either case the person concerned must be aware that the decision may cause the failure. The individual’s behaviour in taking the decision must be far below that which could reasonably be expected of a person performing the senior management

[582] Financial Services Act 2012, s 90(1).

[583] Financial Services Act 2012, s 90(4).

[584] Financial Services Act 2012, s 91(1).

[585] Financial Services Act 2012, s 91(2).

[586] Financial Services (Banking Reform) Act 2013, s 36 *Offence relating to a decision causing a financial institution to fail*.

function that the individual performs. An essential element of the offence is that the implementation of the decision for which the person is being prosecuted causes the relevant financial institution to fail.[587]

1.3.3. Stewardship

The UK Stewardship Code 2020 is set by the Financial Reporting Council (FRC), the regulator for auditors, accountants and actuaries. The code is voluntary and sets high stewardship standards for asset owners and asset managers, and for service providers that support them. Stewardship means 'the responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable benefits for clients, the financial system, the economy, the environment and society'.[588] The code comprises a set of 'apply and explain' principles for asset managers and asset owners, and a separate set of principles for service providers.

Stewardship in the FCA Handbook

The FCA Handbook requires insurers and reinsurers under the SYSC Sourcebook to develop and explain how they have implemented an engagement policy for their listed equity investments, including how they monitor investee companies, their voting behaviour and their use of proxy advisors.[589] Meanwhile, asset managers are required under the COBS to develop and explain how they have implemented an engagement policy for their listed equity investments, including how they monitor investee companies, their voting behaviour and their use of proxy advisors.[590] In addition, regulated firms are required under the COBS to disclose the nature of their commitment to the code or, where they do not commit to the code, their alternative investment strategy.[591] Asset owners and asset managers may not delegate their responsibility and are accountable for effective stewardship.

---

[587] The maximum penalty on conviction on indictment in the UK is 7 years' imprisonment or an unlimited fine (or both).

[588] <https://www.frc.org.uk/investors/uk-stewardship-code> accessed 21 September 2022.

[589] SYSC 3.4 *SRD requirements*, SYSC 3.4.5R. SRD means Directive (EU) 2017/828 of the European Parliament and of the Council of 17 May 2017 amending Directive 2007/36/EC as regards the encouragement of long-term shareholder engagement (Shareholder Rights Directive) <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017L0828&from=EN> accessed 21 September 2022.

[590] COBS 2.2B *SRD requirements*, COBS 2.2B.6R.

[591] COBS 2.2 *Information disclosure before providing services (other than MiFID and insurance distribution)*, COBS Rule 2.2.3.

1.3.4. Corporate governance

The UK Corporate Governance Code 2018, which is also set by the FRC applies to all companies with a premium listing, whether incorporated in the UK or elsewhere. The code puts emphasis upon the relationships between companies, shareholders and stakeholders, and the value of good corporate governance to long-term sustainable success. The code also promotes the importance of establishing a corporate culture that is aligned with company purpose, business strategy, promotes integrity and values diversity. For example, one of the principles provides that 'the board should establish the company's purpose, values and strategy, and satisfy itself that these and its culture are aligned. All directors must act with integrity, lead by example and promote the desired culture'.[592] The FRC explains that by applying the principles, and following the more detailed provisions, companies can demonstrate how the governance of the company contributes to its long-term sustainable success and achieves wider objectives. In certain instances, the FCA considers that a firm's compliance with provisions of the code will result in compliance of certain provisions within the FCA Handbook.[593] In addition, the FCA will give due credit if a senior conduct rules staff member followed corresponding provisions in the UK Corporate Governance Code and related guidance when forming an opinion as to whether they have complied with the rules in COCON.[594] Furthermore, the FCA will have regard to whether an SMF manager acted in accordance with the code when determining whether or not they have taken such steps as they could reasonably be expected to take to avoid the contravention of a relevant requirement by the firm.[595]

2. LEGAL STANDARDS

[592] Principle B.

[593] The Disclosure Guidance and Transparency Rules (DTR) sourcebook.

[594] COCON 3.1.7G explains that in forming an opinion as to whether a senior conduct rules staff member has complied with the rules in COCON, the FCA will give due credit if they followed corresponding provisions in the UK Corporate Governance Code and related guidance. In addition, SYSC 3.1.3G provides that where the UK Corporate Governance Code is relevant to a firm, the FCA or PRA, in considering whether a firm's obligations under SYSC 3.1.1 R have been met, will give it due credit for corresponding provisions in the code and related guidance.

[595] FSMA 2000, s 66A(5)(d).

2.1. Common law

2.1.1. Duty to advise

In the financial services industry, negligent advice claims usually arise from a duty to advise, either contractually or in tort.[596] The key principle is that if the parties have contractually defined the manner in which they will conduct their business, that will determine the scope of the responsibility assumed.[597] The basis of a contractual claim is that, where a firm has agreed to advise its customers, it must exercise reasonable care and skill in providing the advice, in accordance with section 13 of the Supply of Goods and Services Act (SGSA) 1982. However, it is unusual for firms to agree a contractual duty to advise its customers.[598] Furthermore, there is no duty in tort for firms to explain to customers the nature or effect of a transaction or the risks involved, or to establish the suitability of a transaction. However, if the firm does give an explanation or tender advice, then it owes a duty to give that explanation or tender that advice fully, accurately and properly.[599] The extent of that duty will depend on the precise nature of the circumstances and of the explanation or advice which is given. Moreover, whether a duty to advise exists will depend upon the application of (a) the Hedley Byrne[600] requirements of "assumption of responsibility" and "reasonable reliance"; (b) the three-fold test of reasonable foreseeability of loss; sufficient proximity between the parties; and whether in all the circumstances it is fair just and reasonable to impose a duty; and (c) the incremental test.[601] In terms of the requirements under Hedley Byrne, if someone with a special skill undertakes, irrespective of contract, to apply that skill for the assistance of another person who relies upon that skill, a duty of care will arise. However, the circumstances would need to be exceptional before a firm came under a general duty to advise in relation to the product or services that it was tendering.[602] Nevertheless, even where the Hedley Byrne requirements are met and a duty of care

[596] Danny Busch and Cees Van Dam, 'A Bank's Duty of Care: Perspectives from European and Comparative Law', in Danny Busch and Cees Van Dam (eds), *A Bank's Duty of Care* (Bloomsbury 2017).

[597] Henderson v Merrett [1995] 2 AC (HL) 145.

[598] Shazia K Afghan, 'A new duty of care for financial firms - only one part of the story?' 34 Journal of International Banking Law and Regulation (2019) 222.

[599] Bankers Trust International Plc v PT Dharmala Sakti Sejahtera (No.2) [1996] C.L.C. 518 QBD (Comm) at 533; and Hedley Byrne & Co v Heller & Partners Ltd [1964] AC (HL) 465.

[600] *Hedley* (n 599 above).

[601] This refers to the incremental development of duties which ought to be imposed in specific situations, rather than the development of a broad test which governed all areas of negligence, having regard to the course of dealings between the parties.

[602] Finch v Lloyds TSB Bank plc [2017] 1 BCLC. 34 at 53; JP Morgan Chase Bank v Springwell Navigation Company [2008] EWHC 1186 (Comm) at 677.

is assumed, this is likely to be negated by a contractual disclaimer which denies that advice had been given and relied upon. This disclaimer may take the form of a basis clause or an exclusion clause. Exclusion clauses expressly exclude liability or 'attempt to rewrite history' that has already occurred in order to avoid liability.[603] Meanwhile, basis clauses define the basis of the relationship between parties, for example, by stating that no advice is given, no reliance will be made, or no representations have been made. Accordingly, basis clauses are not construed as exclusion clauses[604] and therefore fall outside the scope of the Unfair Contract Terms Act (UCTA) 1977.[605] Therefore, if a firm, having assumed a responsibility to advise, has provided negligent advice, a claim in tort will be unsuccessful on the basis that the firm has disclaimed responsibility for the advice provided.[606]

2.1.2. Duty not to misstate information

A separate cause of action in misrepresentation, negligent misstatement or deceit may be brought where a firm provides a statement of fact, which forms part of any advice provided, on the basis that the statement made was one of fact, not of opinion, and was false in a material respect.[607] Alternatively, the statement amounting to advice carried with it an implied statement of fact to the effect that the maker of the statement had reasonable grounds for holding the opinion.[608] For example, while predictions themselves as to the future performance of certain investments are not actionable, those predictions amounted to an implied representation that the predictions could be justified on reasonable grounds.[609] Moreover, advice provided may also include a statement that the maker of the statement is not aware of any facts which make the statement of opinion untrue.[610] However, there may be certain opinions which, in all the circumstances, are not accompanied by the implied representation of reasonable grounds.[611] Indeed, the existence of such a representation will generally depend on the context of the communication and the parties'

[603] Raiffeisen Zentralbank Osterreich AG v Royal Bank of Scotland Plc [2010] EWHC 1392 (Comm) at 314.

[604] This distinction was discussed in Springwell Navigation Corp v JP Morgan Chase Bank (formerly Chase Manhattan Bank) [2010] EWCA Civ 1221 at 119, 144 and applied in a number of cases which followed.

[605] However, a basis clause may constitute an unfair term in a consumer contract within the meaning of Unfair Terms in Consumer Contracts Regulations 1999 (SI 1999/2083) or (for contracts made on or after 1 October 2015) the Consumer Rights Act 2015.

[606] In Crestsign Ltd v National Westminster Bank Plc [2014] EWHC 3043 (Ch), the banks provided negligent advice, however, they successfully disclaimed responsibility for the advice given.

[607] This duty may also be pleaded as a common law duty of care to give information which is not misleading.

[608] Brown v Raphael [1958] Ch 636.

[609] Investors Compensation Scheme Ltd v West Bromwich Building Society (No.2) [1999] Lloyd's Rep 496.

[610] IFE Fund SA v Goldman Sachs International [2007] EWCA Civ 811; [2007] 2 Lloyd's Rep 449; [2007] 2 CLC 134.

[611] *Springwell* (n 604 above).

respective positions, knowledge and experience. Furthermore, the fact that a party made representations, or that those were relied upon, may be negated by an appropriate contractual disclaimer. As a result, the claimant will be prevented from asserting that such a representation was made or relied upon, by contractual estoppel.

Nonetheless, the courts have recognised statutory exceptions to the doctrine of contractual estoppel.[612] For example, section 3 of the Misrepresentation Act 1967 prevents a person from excluding or restricting liability for misrepresentation, or any remedy available for misrepresentation, by a contractual term unless it satisfies the requirement of reasonableness.[613] Meanwhile, section 2 of the UCTA 1977 provides that a person cannot exclude or restrict liability for negligence by a contractual term or notice unless it satisfies the requirement of reasonableness. Furthermore, section 17(1) of the UCTA 1977 seeks to prevent any term of a standard form contract to exclude or restrict liability, and to render a performance substantially different from what was reasonably expected, if it was not fair and reasonable to incorporate such terms. The test of reasonableness includes the inequality of bargaining power.[614]

2.1.3. Duty to explain the nature and effect of a transaction

Where a firm gives an explanation or provides advice, it owes a duty to give that explanation or provide that advice fully, accurately and properly.[615] As a result, a firm could owe a duty to take reasonable care to explain the nature and effect of a proposed transaction.[616] This duty, which has hitherto been referred to as an 'intermediate' or 'mezzanine' duty, is less onerous than a duty of care to advise and more onerous than a mere duty not to misstate facts. Therefore, where a firm undertakes to explain the nature and effect of a transaction, it will owe a duty to take reasonable care to do so as fully and properly as the circumstances demand.[617] For example, a firm should provide customers with sufficient information to enable them to make a properly informed choice

---

[612] Kern Alexander, 'England & Wales' in Danny Busch and Cees Van Dam (eds), *A Bank's Duty of Care* (Bloomsbury 2017).

[613] *IFE Fund* (n 610 above). UCTA 1977, s 11 *The "reasonableness" test* provides that the requirement of reasonableness for the purposes of the UCTA 1977, and the Misrepresentation Act 1967 is that 'the term shall have been a fair and reasonable one to be included having regard to the circumstances which were, or ought reasonably to have been, known to or in the contemplation of the parties when the contract was made'.

[614] UCTA 1977, Sch 2 '*"Guidelines" for Application of Reasonable Test'* includes 'the strength of the bargaining positions of the parties relative to each other' as one of the matters to which regard was to be had.

[615] *Crestsign* (n 606 above).

[616] *Crestsign* (n 606 above).

[617] *Crestsign* (n 606 above) at 136.

between unfamiliar and complex products.[618] However, this mezzanine duty has been criticised on the basis that it seeks to introduce a common law duty of care concurrent with duties set out in the COBS, and its predecessor the Conduct of Business (COB) rules, of the FCA Handbook. Moreover, making a common law duty of care concurrent with duties set out in the COBS, and its predecessor the COB, had the effect of circumventing the restrictions in section 138D *Actions for damages* FSMA 2000 which provide rights of action for breaches of the COBS to private persons only. For example, COB 5.4.3R 'Requirement for risk warnings'[619] provided that a firm must not make a personal recommendation of a transaction to or for a private customer unless it has taken reasonable steps to ensure that the private customer understands the nature of the risks involved.[620] However, in Crestsign Ltd v National Westminster Bank Plc[621], it was held that the common law duty not to misstate did not extend to a duty to ensure that a customer understands correctly the information provided by the financial institution or its implications or consequences; or that a customer took an informed decision.[622] Moreover, it would extend to correcting any obvious misunderstandings and answering any reasonable questions about products in respect of which the financial institution had chosen to volunteer information.[623] Notwithstanding, in Property Alliance,[624] the Court of Appeal held that the 'intermediate' or 'mezzanine' duty terminology should be avoided, together with any notion that there is a sliding scale of duties owed by a firm. Nevertheless, the Hedley Byrne duty not to misstate information could still encompass the duty to explain the nature and effect of a transaction, provided there is an appropriate assumption of responsibility between the parties, which is likely to be fact sensitive.

2.2. Agency law

In English law, agency is a legal relationship which involves a 'principal', on whose behalf the agent acts; an 'agent', who acts on behalf of the principal; and 'third parties' whom the agent

---

[618] *Crestsign* (n 606 above) at 137.

[619] COB 5.4.3R was removed from the FSA Handbook on 1 November 2007 following the coming into force of the Markets in Financial Instruments Directive 2014/65 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61 [2014] OJ L173/349 (MiFID).

[620] The requirement to *ensure a customer understands the risks* has been replaced by a less demanding requirement to provide sufficiently comprehensive information so that the client is *reasonably able to understand* the nature of the risks in COBS 2.2.1R; COBS 2.2A; COBS 14.3.2R; and COBS 14.3A.3R.

[621] *Crestsign* (n 606 above).

[622] *Crestsign* (n 606 above) at 155. London Executive Aviation Ltd v Royal Bank of Scotland Plc [2018] EWHC 74 (Ch).

[623] *Crestsign* (n 606 above) at 155.

[624] Property Alliance Group v Royal Bank of Scotland [2018] EWCA Civ 355.

brings into legal relations with the principal.[625] For example, investors in the financial markets will invariably enter into an agency relationship with brokers, investment advisers or portfolio managers in order to invest in financial instruments. The broker, investment adviser or portfolio manager, as agent will be able to enter in contractual arrangements and take other actions on behalf of an investor as principal.[626] The American Law Institute's Restatement of the Law of Agency succinctly defines 'agency' as 'the fiduciary relationship that arises when one person (a 'principal') manifests assent to another person (an 'agent') that the agent shall act on the principal's behalf and subject to the principal's control, and the agent manifests assent or otherwise consents so to act'.[627] This definition highlights four distinctive traits of agency. Primarily, an agent is a person who has the authority or capacity to bind and give rights to its principal, i.e. create legal relations, when dealing with third parties. However, this principle provides an incomplete picture of agency.[628] For example, a principal will be liable for fraud committed by its agent in the course of their employment or authority, irrespective of whether the fraud was committed for the benefit of the principal.[629] Secondly, agency is almost invariably created under the law of contract, however it is not necessary for a contract to exist.[630] Indeed, an agent may act gratuitously, without any compensation or reward. Thirdly, the agency relationship is usually established by consent.[631] Therefore, it is sufficient that there is consent, whether express or implied, by the principal for the agent to have authority, and by the agent to exercising such authority on behalf of the principal.[632] However, consent does not lie at the heart of every agency.[633] Agency is a legal, as opposed to a factual question. Therefore the parties will be held to have consented if they had agreed to what amounts in law to such a relationship, even if they do not recognise it themselves, and even if they have professed to disclaim it.[634] Fourthly, agency is a fiduciary relationship. The principal places the agent in a position of trust and confidence, empowering the agent to act for them, and to alter their legal relations with third parties. The

[625] Roderick Munday, *Agency Law and Principles* (3rd edn, OUP 2016).

[626] Deborah A. DeMott, 'Rogue Brokers and the Limits of Agency Law' in Arthur B. Laby (ed), *Cambridge Handbook of Investor Protection* (Cambridge University Press (forthcoming 2022) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3820120> accessed 21 September 2022.

[627] n 625 above.

[628] n 625 above.

[629] n 625 above.

[630] Implied duties are important where an agency relationship has been established by a course of dealing rather than by written agreement, for example in sophisticated financial and insurance markets.

[631] Yasuda Fire & Marine Insurance v Orion Marine Insurance Underwriting Agency Ltd [1995] QB 174 at 185.

[632] Garnac Grain Co Inc v HMF Faure and Fairclough Ltd [1968] AC 1130.

[633] n 625 above.

[634] *Garnac Grain* (n 632 above) 1137.

agent is therefore a fiduciary. The distinguishing obligation of a fiduciary is the obligation of loyalty' [635] This means a fiduciary must act in good faith, they must not make a profit out of his trust, they must not place themselves in a position where their duty and their interest may conflict, and they may not act for their own benefit or the benefit of a third person without the informed consent of their principal.[636] The 'no conflict' and 'no profit' rules are prophylactic, rather than compensatory or restitutionary. They are based on a pessimistic but realistic appraisal of human nature, and are directed to the avoidance of temptation.[637] Fiduciary obligations therefore do not derive from the agreement of the parties, but attach to the position of trust in which the agent has been placed by being empowered to act for and to alter the legal relations of the principal.

The duties of an agent fall into two broad categories. Primarily, given that the majority of agencies will be borne from contractual arrangements between principal and agent, the agent will owe duties at common law as discussed above, most notably, a duty to perform their mandate with reasonable skill and care. Meanwhile, the development of agents' duties has been strongly influenced by equitable principles.[638] Therefore, the agent owes two species of duties to their principals. The first species are contractual duties to their principal. These are the duty to obey the lawful instructions of the principal, the duty to act only within the limits of its authority, the duty to use reasonable diligence and care, and reasonable despatch. The second species are fiduciary duties, arising out of the special position of trust in which the law of agency places them.[639] These are the duty not to allow their interests to conflict with those of the principal; the duty to make full disclosure; the duty not to take advantage of their position; the duty not to take secret bribes or secret commissions; the duty not to delegate their office; and the duty to account.[640] Both species of duties are discussed briefly below.

2.2.1. General duty to carry out contractual instructions of principal

Whenever an agent enters into a contract with their principal, they are bound to act in accordance with the terms of that contract. Moreover, the agent must personally carry out the principal's instructions with reasonable care and diligence.[641] What this core duty requires in the context of

---

[635] Bristol & West Building Society v Mothew [1998] Ch 1 at 18.

[636] This is not intended to be an exhaustive list, however it does provide an indication of the nature or characteristics of fiduciary obligations.

[637] Lord Peter Millet, 'Bribes and Secret Commission Again' (2012) CLJ 583.

[638] Armstrong v Jackson [1917] 2 KB 822 at 826.

[639] n 625 above.

[640] n 625 above.

[641] Dunlop Haywards (DHL) Ltd v Barbon Ins Group Ltd [2010] Lloyd's Rep 149 at 156.

a particular agency relationship will depend on all the circumstances. For example, the terms of the individual contract may expressly incorporate, amend or exclude certain of the normal incidents of agency.[642] However, the general principle remains that the agent is bound to carry out the instructions of the principal.

2.2.2. *Duty to comply with lawful instructions of principal*

The agent must fulfil their contractual obligations. Therefore, where an agent is given instructions to sell certain goods at least at their invoice price, they will be liable if they fail to follow such instructions.[643] However, the agent will not be expected to comply with instructions that would be null and void at common law or under statute.[644]

2.2.3. *Duty to act only within limits of authority*

An agent must not exceed the authority conferred by the principal, even if they considered that in doing so, they were acting in the client's best interests. By the same token, where an agent is employed expressly to undertake a transaction on behalf of the principal which is considered imprudent, the agent will not be held responsible for any negative consequences that ensue from doing what they were instructed to do. Indeed, an agent who has a purely advisory duty, does not owe an implied duty to prevent excessive risk-taking by their principal.[645]

2.2.4. *Duty to use reasonable care, skill and diligence, and reasonable despatch*

An agent is required to exercise the degree of care, skill and diligence that is anticipated of an agent employed in their particular capacity. As a result, this will be fact specific.[646] For example, brokers charged with selling goods who did not ensure that they obtained the best price for their principal were held to have failed to exercise due care and diligence.[647] Furthermore, a mercantile agent who, having failed to comply with the principal's specific and urgent instruction to sell goods immediately in order not to lose a market, was held to be in breach of this duty when after

[642] n 625 above.

[643] Dufresne v Hutchinson (1810) 3 Taunt 117.

[644] Thomas Cheshire & Co v Vaughan Bros & Co [1920] 3 KB 240.

[645] Redmayne Bentley Stockbrokers v Isaacs [2010] EWHC 1504 (Comm) at 100.

[646] Expert evidence may be adduced under the Civil Evidence Act 1972, s 3 to determine whether an agent has met the accepted standards of their profession in a particular transaction.

[647] Solomon v Barker (1862) 2 F&F 726.

considerable time had passed he was forced to sell at a substantial loss after the market collapsed.[648] As a general principle, an agent must act sufficiently promptly to discharge his agency duties.[649] In particular, an agent must carry out their principal's instructions, either within the period specified in the agency agreement, or, if no time limit has been prescribed, within a reasonable time. If a time period for performance has been agreed, the agent must comply with that requirement. Where no time limit has been specified in the agreement, the agent must carry out their principal's instructions within a reasonable time.[650]

2.2.5. Duty not to allow interests to conflict with those of principal

An agent owes a fiduciary duty of loyalty, which includes a duty to act bona fide for the principal's benefit.[651] A principal is entitled to expect that their agent will exercise 'a disinterested skill, diligence, and zeal' for the exclusive benefit of the principal.[652] The principal puts their confidence in the agent to act with a sole regard for the interests of the principal.[653] Unless such a duty is imposed on the agent, they might not be able to resist a temptation to not faithfully perform their duty to their employer.[654] Indeed, the duty is strict to encourage proper conduct amongst a class of commercial men and women.[655] The more the principle is enforced, the better for the honesty of commercial transactions.[656] However, these principles of loyalty and honesty are mostly considered in the context of secret commissions earned by the agent, without the knowledge of the principal.[657] Therefore, where an agent colludes with the other side, and so acts in opposition to the interest of their principal, they are not entitled to any commission.[658] In such circumstances, the agent is required to account for any secret commissions received. However, if they wished to earn a commission from a third party, the agent must disclose this fact to their principal, and seek their prior consent. Indeed, consent may only be provided with full knowledge of all the material circumstances and of the nature and extent of the agent's interest.[659] Another

[648] Williams Alexander and Stewart Allan Arthur (t/a Alexander & Co) v Wilson, Holgate & Co Ltd (1923) 14 Lloyd's Rep 431 at 446.

[649] World Transport Agency Ltd v Royte (England) Ltd [1957] 1 Lloyd's Rep 381.

[650] n 625 above.

[651] Lysaght Bros & Co Ltd v Falk (1905) 2 CLR 421.

[652] Joseph Story, *Story on Agency: Commentaries on the Law of Agency* (4th edn, C. C. Little and J. Brown 1851) 262.

[653] n 625 above.

[654] Boston Deep Sea Fishing v Ansell (1888) 38 Ch D 339 at 357.

[655] Rhodes v Macalister (1923) 29 Com Cas 19 at 28.

[656] n 655 above.

[657] Boston Deep Sea Fishing v Ansell (1888) 39 Ch D 339.

[658] Andrews v Ramsay [1903] 2 KB 635.

[659] Hurstanger Ltd v Wilson [2007] 1 WLR 2351 at 34. Boardman v Phipps [1967] 2 AC 46 at 105.

example of an agent compromising their duty to their principal is where the agent acts for more than one competing principal. This situation may arise in the context of investment banking, where firms buy and sell financial instruments as agents for numerous clients, but also on a proprietary basis. In fact, an agent may only act for two or more principals with conflicting interests where all those principals had given their fully informed consent, and where the principals must have appreciated that the nature of the agent's business was such as to require the agent to act for numerous principals in order to perform their function.[660]

2.2.6. Duty to make full disclosure

As discussed above, an agent may only compromise their duty of loyalty to their principal with the fully informed consent of the principal. The duty to make full disclosure is strict, and the burden of proving full disclosure lies with the agent. The agent will be required to disgorge the profit that they make as a fiduciary without the informed consent of their principal. The fact that the principal would have agreed in the event they had been consulted is irrelevant. Further, it is irrelevant that the principal is making a profit which they would not otherwise have made or that they would have otherwise made a loss.[661] The duty of full disclosure also extends to situations where the agent seeks to act on behalf of more than one principal.[662]

2.2.7. Duty not to take advantage of position

An agent may not make use of the principal's property, nor exploit any confidential information that has come into their possession during the course of the agency. Therefore, any profits derived by an agent from an opportunity which arises from their fiduciary relationship, which the agent is bound to use for the benefit of their principal only, are considered profits for which the agent is accountable.[663] The agent will only be permitted to make a profit from their agency if they have the principal's fully informed consent. Moreover, an agent may not derive a profit from use of confidential information acquired during the course of their agency. This is based upon the broad principle of equity that those who have received information in confidence shall not take unfair advantage of it. Indeed, an agent may not make use of confidential information to the

[660] Kelly v Cooper [1993] AC 205 and Rossetti Marketing Ltd v Diamond Sofa Co Ltd [2013] 1 All ER (Comm) 308.

[661] Murad v Al-Saraj [2005] EWCA Civ 959 at 129.

[662] Fullwood v Hurley [1928] 1 KB 498 at 502, and 504.

[663] Boardman v Phipps [1967] 2 AC 46.

prejudice of the principal, unless they provide fully informed consent.[664] A principal is entitled to an account from their agent of any profits they may have made in breach of confidence.

2.2.8. Duty not to take secret bribes or secret commissions

An agent who, in the course of their agency, takes a bribe, or agrees to take a bribe, or receives a secret commission from any third party, who is either transacting business or seeking to enter into legal relations with the principal, will be in breach of their fiduciary duty to their principal.[665] A bribe is defined as a commission or other inducement which is given by a third party to an agent as such, and which is secret from the agent's principal'.[666] Bribes are distinguishable from secret commissions on the basis of motive. If the third party's motive for making a payment to the agent is corrupt, the payment is described as a bribe.[667] Meanwhile, secret commissions are payments that do not involve corrupt motives.[668] Neither bribes nor secret commissions must take the form of monetary payments.[669] There are three elements necessary to constitute the payment of a secret commission or bribe for civil purposes. Those are (a) that the person making the payment makes it to the agent of the other person with whom they are dealing, (b) that they make it to that person knowing that the person is acting as the agent of the other person with whom they are dealing; and (c) that they fail to disclose to the other person with whom they are dealing that they have made that payment to the person whom they know to be the other person's agent.[670] If an agent takes a bribe or secret commission, they must account for it to the principal. Therefore, the agent is liable, jointly and severally together with the briber, to the principal for the sum of the bribe or secret commission.[671] Indeed, any bribe that has actually been paid will be held on trust by the agent for their principal.[672] The rationale for the strict approach is that a principal is entitled to be confident that an agent will act wholly in their interests.[673] It will therefore be presumed that a briber acted with a corrupt motive or intention to persuade or influence the agent.

---

[664] Seager v Copydex Ltd (No.1) [1967] 1 WLR 923 at 931.

[665] n 625 above.

[666] Anangel Atlas Compania Naviera SA v Ishikawajima- Harima Heavy Industries [1990] 1 Lloyd's Rep 167 at 171.

[667] n 625 above.

[668] n 625 above.

[669] n 625 above.

[670] Industries & General Mortgage Co Ltd v Lewis [1949] 2 All ER 573 at 575.

[671] n 625 above.

[672] Attorney-General for Hong Kong v Reid [1994] 1 AC 324; FHR European Ventures LLP v Mankarious [2013] 1 Lloyd's Rep 416.

[673] Novoship (UK) Ltd v Mikhaylyuk [2012] EWHC 3586 (Comm) at 110.

Moreover, the principal need not prove that they were influenced by the bribe or that they suffered loss as a consequence of their agent having received a bribe.[674]

2.2.9. Duty not to delegate office

The general underlying principle is that, given the fiduciary relationship between agent and principal, an agent may not delegate performance of their agency to another person. If an agent does delegate their mandate the acts of the sub-agents will be invalid, and will not bind the principal, unless the principal chooses to ratify the delegation.[675] There are however a number of exceptions. Those are (a) where at the time of the agent's appointment the principal was aware and agreed to the agent delegating their authority, (b) it is usual practice in the trade or profession to which the agent belongs to delegate authority, and it is neither an unreasonable practice nor inconsistent with the terms of the agent's contract with the principal, (c) the nature of the agency requires that it be performed wholly or partly by a sub-agent, (d) it can be presumed from the circumstances, and from the conduct of the parties that the agent was intended to have power to delegate their authority, (e) the act is purely ministerial and does not require particular confidence and discretion, (f) delegation is required by unforeseen circumstances, and (g) apparent authority.[676]

2.2.10. Duty to account

The general rule is that an agent who receives monies or goods from their principal, or on behalf of their principal, is bound to the principal for those monies or goods. This general duty to account may arise at common law or by virtue of the agent's fiduciary position. For example, the contract entered into by agent and principal may specify in what legal capacity monies are to be held by the agent for the principal. Where the agent is more than a mere agent and is a trustee of the money or goods received, the law imposes a fiduciary duty upon the trustee. In such circumstances, the principal may bring a claim for an account in equity.[677]

2.3. Statute

[674] Hovenden & Sons v Millhoff (1900) 83 LT 41; Tesco Stores Ltd v Pook [2003] EWHC 823 (Ch) at 39.

[675] n 625 above.

[676] n 625 above.

[677] Paragon Finance plc v DB Thakerar & Co [1999] 1 All ER 400 at 415.

2.3.1. Companies Act 2006

Sections 170-177 of the Companies Act 2006 specify the general duties which are owed by a company director to the company. Those are the duty to promote the success of the company; the duty to exercise independent judgment; the duty to exercise reasonable care, skill and diligence; the duty to avoid conflicts of interest; the duty not to accept benefits from third parties; and the duty to declare interest in proposed transaction or arrangement. The general duties are based upon the common law rules and equitable principles, and they are interpreted and applied in the same manner as those principles.

2.3.1.1. Duty to promote the success of the company

A company director must act in the way they consider in good faith would be most likely to promote the success of the company for the benefit of its members as a whole, and in doing so have regard, amongst other matters to (a) the likely consequences of any decision in the long term, (b) the interests of the company's employees, (c) the need to foster the company's business relationships with suppliers, customers and others, (d) the impact of the company's operations on the community and the environment, (e) the desirability of the company maintaining a reputation for high standards of business conduct, and (f) the need to act fairly as between members of the company.[678] This duty is subject to any rules of law requiring directors, in certain circumstances, to consider or act in the interests of creditors of the company.[679]

2.3.1.2. Duty to exercise independent judgement

A company director must exercise independent judgement. However, this duty does not prevent the director from acting in accordance with an agreement entered into by the company, which restricts the exercise of discretion by its directors, or in a way which is authorised by the company.[680]

2.3.1.3. Duty to exercise reasonable care, skill and diligence

A company director must exercise reasonable care, skill and diligence. This means the care, skill and diligence that would be exercised by a reasonably diligent person with (a) the general

---

[678] Companies Act 2006, s 172(1) *Duty to promote the success of the company*.

[679] Companies Act 2006, s 172(3) *Duty to promote the success of the company*.

[680] Companies Act 2006, s 173 *Duty to exercise independent judgment*.

knowledge, skill and experience that may reasonably be expected of a company director, and (b) the general knowledge, skill and experience of a company director.[681]

2.3.1.4. Duty to avoid conflicts of interest

A company director must avoid a situation in which they have, or may have a direct or indirect interest that conflicts, or may possibly conflict with the interests of the company. This applies in particular to the exploitation of any property, information or opportunity. It is immaterial whether the company could take advantage of the property, information or opportunity. However, this duty does not apply to a conflict of interest arising in relation to a transaction or arrangement with the company. Moreover, this duty is not breached if the situation cannot reasonably be regarded as likely to give rise to a conflict of interest, or if the matter has been authorised by the directors.[682]

2.3.1.5. Duty not to accept benefits from third parties

A company director must not accept a benefit from a third party received by reason of his being a director, or his doing, or not doing anything as director. This duty is not breached if the acceptance of the benefit cannot reasonably be regarded as likely to give rise to a conflict of interest.[683]

2.3.1.6. Duty to declare interest in proposed transaction or arrangement

If a company director is interested in a proposed transaction or arrangement with the company, they are required to declare the nature and extent of that interest to the other directors in advance of the transaction or arrangement being performed. The declaration may be made at a meeting of the directors, or by notice to the directors in accordance with provisions of the Companies Act 2006. However, a director is not required to declare an interest (a) if it cannot reasonably be regarded as likely to give rise to a conflict of interest, (b) if, or to the extent that, the other directors are already aware of it (or ought reasonably to be aware), or (c) if, or to the extent that, it concerns terms of the director's service contract that have been or are to be considered by a

[681] Companies Act 2006, s 174 *Duty to exercise reasonable care, skill and diligence*.

[682] Companies Act 2006, s 175 *Duty to avoid conflicts of interest*.

[683] Companies Act 2006, s 176 *Duty not to accept benefits from third parties*.

meeting of the directors, or by a committee of the directors appointed under the company's constitution.[684]

2.3.2. Supply of Goods and Services Act 1982

In a contract for the supply of services, where the service provider is acting in the course of a business, there is an implied term that the service provider will carry out the service with reasonable care and skill.[685] This implied term, subject to the UCTA 1977, may be excluded, or varied by express agreement, or by the course of dealing between the parties.[686]

2.3.3. UCTA 1977

A person cannot exclude or restrict liability for negligence by a contractual term or notice unless it satisfies the requirement of 'reasonableness' as set out in the UCTA 1977.[687] Furthermore, any term of a standard form contract which seeks to exclude or restrict liability, and to render a performance substantially different from what was reasonably expected, has no effect if it was not fair and reasonable to incorporate such terms.[688] One of the matters to have regard to in determining whether a contract term satisfies the requirement of reasonableness, is the strength of the bargaining positions of the parties.[689]

2.3.4. Misrepresentation Act 1967

Where a person has been induced to enter into a contract by misrepresentation and, as a result, they have suffered loss, they may seek damages for fraudulent and negligent misrepresentation, unless, in the case of negligent misrepresentation, the person who made the representation can prove they had reasonable grounds for believing the statement to be true.[690] Where a party to a contract seeks to exclude liability for misrepresentation by including an exclusion clause in the contract, such a clause will have no effect unless it satisfies the requirement of 'reasonableness'

[684] Companies Act 2006, s 177 *Duty to declare interest in proposed transaction or arrangement*.

[685] Supply of Goods and Services Act 1982, s 13 *Implied term about care and skill*.

[686] Supply of Goods and Services Act 1982, s 16 *Implied term about care and skill*.

[687] UCTA 1977, s 11 *The "reasonableness" test*.

[688] UCTA 1977, s 17 *Control of unreasonable exemptions in ... standard form contracts*.

[689] UCTA 1977, sch 2 '*"Guidelines" for Application of Reasonable Test'*.

[690] Misrepresentation Act 1967, s 2(1) *Damages for misrepresentation*.

as set out in the UCTA 1977.[691] The burden of proving that the term is reasonable falls upon the party asserting that the term satisfies that requirement.[692]

[691] Misrepresentation Act 1967, section 3(1) *Damages for misrepresentation*.

[692] Misrepresentation Act 1967, s 3(1) *Damages for misrepresentation*.

3. CURRENT ETHICAL STANDARDS

From the regulatory and legal standards in banking and finance we may distil and aggregate the ethical principles of *integrity, loyalty, prudence, skill, care, diligence,* and *fairness*.[693] This next section will carry out a review of these ethical principles, to assess the extent to which they practically guide ethical conduct in financial services.

3.1. Integrity

The term '*integrity*' is often discussed in general ethics literature, and universally appears in company value, ethics or mission statements. The FCA's predecessor, the FSA, described '*integrity*' as a moral concept, but considered that its everyday meaning is familiar enough not to warrant elaboration.[694] In hindsight, this may seem unsatisfactory, not least for 'rule of law' reasons, because breaches of FCA Principle 1 *Integrity* are among the most likely to lead to disciplinary action.[695] Moreover, '*integrity*' is a notoriously elusive concept. Indeed it has been suggested that '*integrity*' represents one of those things you notice by its absence rather than presence.[696] Following the global financial crisis, it was principally the lack of integrity which was deplored by civil society. Moreover, because the notion is used in such divergent ways, its value in guiding everyday conduct may be more limited than is generally supposed.[697] For example, when used as a term of substantive virtue '*integrity*' refers to a quality of a person's character.[698] The English courts have said that 'integrity' connotes moral soundness, rectitude and steady adherence to an ethical code. [699] Therefore, they expect those working in the banking industry to adhere to this ethical standard.[700] A person lacks integrity if they are unable to appreciate the distinction between what is honest or dishonest by ordinary standards. This

[693] See Appendix 1 *Overview of Ethical Principles*.

[694] FSA 'Principles for Businesses, Response on Consultation Paper' (1999).

[695] Tamar Frankel, *Fiduciary Law* (OUP 2011).

[696] William Blair and Clara Barbiani, 'Ethics and standards in financial regulation', in C Russo, R Lastra, W Blair (eds), *Research handbook on law and ethics in banking and finance* (Edward Elgar Publishing Limited 2019).

[697] R Audi & P Murphy, 'The many faces of integrity' (2006) 16 Business Ethics Quarterly 21.

[698] While 'integrity' does not appear in Aristotle's list of virtues. he does argue for the unity of the virtues, so that they are all interconnected, and that if a person fully possesses one of them, he should have them all. It would seem that this unity is achieved through practising practical wisdom. Aristotle, *Nicomachean Ethics*, Book 6, 1144b. John Cottingham, 'Integrity and Fragmentation' (2010) 27 Journal of Applied Philosophy 2 <https://www.jstor.org/stable/24355963> accessed 21 September 2022.

[699] Hoodless and Blackwell v FSA [2003] FSMT 007 at 19; Ford v FCA [2018] UKUT 0358 (TCC) at 17.

[700] Hayes v Regina [2015] EWCA Crim 1944 at 88.

obviously presupposes circumstances where ordinary standards are clear.[701] However, in the classical literature on virtue, our contemporary notions of 'integrity' are not deliberated in any particular detail.[702] Secondly, the term may be interpreted somewhat differently from a systemic perspective, where '*integrity*' refers to the wholeness and purity of an object or of a person.[703] This derives from the Latin root, *integritas*, used to mean completeness, purity, from *integer*, whole'.[704] However, the terms wholeness and purity are by no means equivalent. Indeed, the wholeness of individuals or institutions which do not integrate a set of commendable virtues, may lead to *wholly* unethical behaviour.[705] Moreover, it has been suggested that virtues such as 'integrity' cannot be understood separately from that coherent set of virtues of which it forms an integral part.[706] Therefore, even though a person might not have been dishonest, if they either lack an ethical compass, or their ethical compass to a material extent points them in the wrong direction, that person will lack integrity'.[707] This would, in turn, imply a broader moral framework in which specific virtues are recognised[708] including courage, temperance, liberality,

---

701 Gregory Treverton-Jones, 'An ordinary word given an extraordinary meaning: What is 'integrity?' (2019) Law Society Gazette <https://www.lawgazette.co.uk/practice-points/an-ordinary-word-given-an-extraordinary-meaning/5070595.article> accessed 21 September 2022.

702 Neither Ancient Athens or Jerusalem, the twin pillars of Western culture, appear to provide any foundational teaching about integrity. In Psalm 26:1, the Hebrew phrase, which translates into English as 'in mine integrity', is 'be tummi'. Tum (or tom) means wholeness, or completeness. The underlying idea being that sinning takes something from you. 'Wholeness' or 'completeness' of character (tum) is thus seen as implying an absence of bad characteristics, which connects with the derivative sense of the term, namely innocence. Secondly, in Psalm 86:11, the Psalmist prays to God in Hebrew 'yahed levavi', which literally means 'unite my heart!' (the imperative verb yahed comes from the root ehad, meaning 'one'). John Cottingham, 'Integrity and Fragmentation' (2010) 27 Journal of Applied Philosophy 2 <https://www.jstor.org/stable/24355963> accessed 21 September 2022.

703 The idea of purity of heart has its analogue in Islam with the concept of '*ikhlas'* or sincerity. Simon Robinson, *The Practice of Integrity in Business*, (Palgrave Macmillan 2016). Werner Erhard, Michael C. Jensen, and Steve Zaffron, 'Integrity: A Positive Model that Incorporates the Normative Phenomena of Morality, Ethics and Legality' (2009), Harvard Business School NOM Working Paper No. 06- 11, Barbados Group Working Paper No. 06-03; Simon School Working Paper No. FR 08-05. <http://ssrn.com/abstract=920625> accessed 21 September 2022.

704 Muel Kaptein and Johan Wempe, *The Balanced Company, A Theory of Corporate Integrity* (OUP 2002).

705 Onora O'Neill, 'What is banking for?' Remarks by Baroness Onora O'Neill', Federal Reserve Bank of New York (2016) <https://www.newyorkfed.org/medialibrary/media/governance-and-culture-reform/ONeill-Culture-Workshop-Remarks-10202016.pdf> accessed 21 September 2022.

706 <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/treasury-committee/the-work-of-the-banking-standards-board/oral/92406.pdf> accessed 21 September 2022.

707 First Financial Advisers Ltd v FSA [2012] UKUT B16 (TCC) 5.

708 Angus Robson, 'Constancy and integrity: (un)measurable virtues?' (2015) 24 Business Ethics: A European Review 2.

magnificence, pride, magnanimity, patience, friendliness, truthfulness, wittiness[709], empathy[710] and faith, hope and love.[711] However, it would seem that we are none the wiser as to the nature and constituency of this broader moral framework.[712]

Principle 1 of the FCA Principles requires a firm to 'conduct its business with integrity'. From its earliest inception, this principle was designed to be an 'arch' principle, covering in general terms the material in the remaining principles.[713] Indeed, the original text of Principle 1 *Integrity* provides that a firm should observe high standards of integrity and fair dealing.[714] This requirement was specifically drawn from the language of the Financial Services Act 1986.[715] The term 'integrity' included concepts of honesty, of straightforwardness and of honourable conduct.[716] Moreover, fair dealing included the fundamental legal concept of fairness. Meanwhile, fairness involved an approach to business based on rationality and balance. Rationality is relevant for two reasons. Firstly, because of the inherent need that what is fair should be seen to be rational. Secondly, because what was fair yesterday may not be fair today, and the process of change must be achieved in a sensible way. The element of balance involves, the recognition of the existence of a balance between the interests of different customers, or between the interests of one or more customers, and that of the firm, and the firm's obligation to ensure that the balance is reasonably held between those various interests. A third view is that integrity is an *adjunctive* rather than a *substantive* virtue.[717] In other words, integrity is regarded as a necessary *second-order virtue*, which has more to do with *how* we make moral decisions than the actual moral substance.[718] A fourth albeit related view, is that integrity is not limited to human character, or the conglomeration of all virtues. Moreover, it is the integrative judgement

---

[709] These are broadly Aristotle's moral virtues. Aristotle, *The Nicomachean Ethics* (David Ross, tr, Lesley Brown, ed, OUP 2009).

[710] Empathy is a virtue of modern psychology. Simon Robinson, *The Practice of Integrity in Business*, (Palgrave Macmillan 2016).

[711] Faith, hope and love are theological virtues.

[712] n 710 above.

[713] The Securities & Investment Board (SIB) was the predecessor to the FSA and FCA. The SIB introduced 'Statements of Principles' in 1990, which over time have developed into the current FCA Principles.

[714] Michael Blair, '*Financial Services: The New Core Rules'* (Blackstone Press limited 1991).

[715] The Financial Services Act 1986, schedule 8, paragraphs 1A and 2 requires that the conduct of business provisions and the other legislative provisions must promote *high standards of integrity and fair dealing* in the conduct of investment business and the conduct of business rules must make proper provision for requiring an authorised person to act with *due skill, care and diligence* in providing any service which he provides or holds himself out as willing to provide. (Emphasis added).

[716] n 714 above.

[717] n 697 above.

[718] n 697 above.

and control of character, conduct and consequences.[719] On this basis, the three chief characteristics of the concept of integrity are internal coherence in the motives for what one would like to be, what one will (not) do, and what one would like to realise; coherence between motives (what one is), actions (what one does (does not do), and the effects of these actions (what one achieves); and coherence in motives, actions, and effects with respect to the outside world. The concept of integrity emphasises the coherence between consequentialist, deontological and virtue ethics.[720] Needless to say, there are many different philosophical views, from which emerges a sense of '*integrity*' as connective and highly complex concept.[721]

3.2. Skill, care and diligence

The notions of '*skill'*, '*care'* and '*diligence'* are not entirely discrete. Indeed, they are used by jurists interchangeably and are generally overlapping. For example, the notion of '*skill*' embraces care, for even in so-called unskilled operations an exercise of care is necessary to the proper performance of duty,[722] although, it is not synonymous with '*care*'.[723] Meanwhile, a person who is sufficiently *skilled* is one who has through training and practice acquired a good knowledge of the science or art for which his opinion is sought.[724] For example, a bank manager was held to be '*specially skilled*' in foreign law as to the proof of which bank notes were legal tender.[725] Moreover, when a skilled person is employed, there is on their part an implied warranty that they are of skill *reasonably* competent to the task they undertakes.[726] However, this does not mean the very highest skill[727], rather an *'ordinary degree of skill and knowledge which would reasonably be expected from one acting in the particular employment and circumstances'* (emphasis added).[728] In addition, it is implied that where a person is skilled, they undertake to use their skill for '*of what advantage to the employer is his servant's undertaking that he possesses skill unless he undertakes also to use it*'.[729] Meanwhile, '*ordinary care*' means that care which may reasonably be expected from '*a person old enough to be responsible for his conduct*', and want

[719] n 704 above.

[720] n 704 above.

[721] n 704 above.

[722] Lister v Romford Ice and Cold Storage Co [1957] AC 555.

[723] McCrone v Riding [1938] 1 All ER 157.

[724] R v Bummiss 44 CR 262.

[725] Ajami v Controller of Customs [1954] 1 WLR 1405.

[726] Harmer v Cornelius (1885) 5 C.B.N.S. 246.

[727] Rich v Pierpoint (1862) 3 F & F 35.

[728] Jenkins v Betham (1855)15 CB 189.

[729] *Lister* (n 722 above).

of it is negligence.[730] Furthermore, professional diligence is the standard of special '*skill'* and '*care'* which a trader may reasonably be expected to exercise towards consumers which is commensurate with either (a) *honest* market practice in the trader's field of activity, or (b) the general principle of *good faith* in the trader's field of activity[731] (emphasis added).

In another example, it was held that the duty of a company director to exercise *reasonable care, skill* and *diligence* contained objective and subjective elements.[732] In terms of the objective element, the company director must exercise such a degree of care as would be exercised by a reasonably diligent person having the knowledge, skill and experience reasonably expected of a person acting in their capacity as a company director. As far as the subjective element is concerned, this refers to the requirement that company directors are expected to exercise the skill and experience which they actually possess. For example, in the funds industry, the subjective element of the duty could serve to give comfort to investors on the qualifications and experience of a particular company director.[733] Indeed, it appears that Principle 2 *Skill, care and diligence* which requires skilled, careful and attentive conduct, does not create much, if any, new law. Furthermore, it appears to require the generally accepted standards of the law, particularly those in tort, or delict[734], known as '*negligence*'.[735] However, tortious duties do not prescribe absolute, or strict liability, duties. They merely oblige firms to take reasonable care. In effect, it would seem, this Principle 2 *Skill, care and diligence* requires firms to do no more than conduct their business with reasonable care and skill. However, the common law standard may lead us to interpret what is '*reasonable care* and *skill*' on the basis of *a posteriori* judgements, which only reveal what we actually do, and would seem inappropriate for the purposes of identifying what we ought to do as unconditional requirements.

From a philosophical perspective, the term '*care*' is regarded as a virtue, which is interpreted as a 'general attitude, opposed to callousness and indifference to the needs of others', or 'attentiveness and sensitivity to other people's needs and willingness to help them'.[736] Indeed, some care ethicists ascribe special moral value to caring for those individuals who cannot meet

---

[730] Lynch v Nurden (1841) 1 QB 36.

[731] Consumer Protection from Unfair Trading Regulations 2008, reg. 2 <http://www.legislation.gov.uk/uksi/2008/1277/regulation/2/made> accessed 21 September 2022.

[732] Weavering Macro Fixed Income Fund Ltd (In Liq) v Peterson [2011] 2 CILR 203.

[733] Ashvan B. Luckraz '*The Weavering case in the offshore world*' (2016) 27 ICCLR 217.

[734] In Scotland, a civil wrong comparable with tort in England.

[735] n 714 above.

[736] Gheaus, Anca, 'Personal Relationship Goods', The Stanford Encyclopedia of Philosophy (2018), Edward N. Zalta (ed), <https://plato.stanford.edu/archives/fall2018/entries/personal-relationship-goods/> accessed 21 September 2022.

the needs in question themselves.[737] Moreover, '*care*' has been attributed '*universal*' moral value because most individuals require it to varying degrees at different moments throughout their lives.[738] The virtue of '*care*' is the nearest equivalent to Kant's duty of virtue '*beneficence'*.[739] Kant categorised the duty of '*beneficence*' as non-universal, and therefore an imperfect duty. This demands only the rejection of a maxim of refusing to give help, and not the adoption of a maxim of providing help to all others, which would be impossible.[740] Meanwhile, firms may have a fundamental obligation to act with *due skill*, *care and diligence* to all customers, however what it will take to discharge this fundamental obligation will differ depending upon the needs of customers, which are likely to be informed by their level of knowledge, understanding and experience.

3.3. Prudence

In financial regulation, the term '*prudence*' is mostly concerned with the safety and soundness of firms, and how firms manage their financial risks. A prudent firm will have appropriate systems and controls to manage its risks, and sufficient financial resources to deal with the consequences of those risks, to run effectively, and continue to protect the interests of consumers.[741] Indeed, one of the causes of the global financial crisis was the failure by regulators and supervisors prior to 2007 to address the safety and soundness of the financial system as a whole. Therefore, some of the most significant responses to the global financial crisis were macro and micro-prudential measures.[742] The focus of Principle 4 *Financial prudence* primarily relates to the financial resources of firms, rather than the conduct of the firm in respect of its customers. However, a fiduciary duty also includes 'treating principals with care, skill and prudence expected of similarly placed professionals'.[743] Moreover, according to the UN Principles for Responsible Investing Initiative, the duty of '*prudence*' requires a fiduciary[744] to act with '*due*

---

[737] Diemut Elisabet Bubeck, *Care, Gender, and Justice* (OUP 1995).

[738] Eva Kittay, *Love's Labor: Essays on Women, Equality, and Dependency* (Routledge 1999).

[739] Immanuel Kant, *Groundwork of the Metaphysics of Morals*, (Mary Gregor and Jens Timmerman, eds and trs, Cambridge University Press 2012).

[740] Onora O'Neill, *Constructions of Reason, Exploration of Kant's practical philosophy* (Cambridge University Press 1989).

[741] 'The FCA's approach to advancing its objectives' (2013) <https://www.fca.org.uk/publication/corporate/fca-approach-advancing-objectives-july-2013.pdf> accessed 21 September 2022.

[742] Rosa M. Lastra and Marcelo J. Sheppard, 'Ethical foundations of financial law' in C Russo, R Lastra, W Blair (eds), *Research handbook on law and ethics in banking and finance*, (Edward Elgar Publishing Limited 2019).

[743] B. Richardson, *Fiduciary Law and Responsible Investing: In Nature's Trust* (Routledge 2013).

[744] In Bristol and West Building Society v Mothew [1996] EWCA Civ 533 Lord Millet stated that in finding a breach of fiduciary duty '*mere incompetence is not enough. [...] A servant who loyally does his incompetent best for his master is*

care, *skill* and *diligence*, investing as an '*ordinary prudent person*' would do'.[745] This is relevant to the equity investment markets, where the long-term interests of investors are regarded as more sustainable and profitable and therefore preferable to investors than the short-term investment approach so notoriously held before the global financial crisis.

Aristotle defines '*prudence*' or '*practical wisdom*'[746] as an intellectual virtue which enables a person to 'deliberate well about what is good and expedient for himself… and about what sorts of things (that) conduce to the good life in general'.[747] The Aristotelian tradition applies the virtue of '*prudence*' to individuals, household management[748] and governments.[749] Indeed, laws and decrees that seek the public good or good life generally should be informed by the virtue '*prudence*'.[750] Aquinas counselled that '*prudentia*' is the disposition to guide one's choices and actions by practical reasonableness.[751] Therefore, similar to '*integrity*' it is regarded as an adjunctive virtue.[752] For Aquinas, the term '*prudentia*' provided for an awareness of the social and physical environment over time and space.[753] For example, openness to the past[754], openness to the present, involving the capacity to listen actively[755], and openness to the future.[756] The emphasis is upon openness and care before any hasty judgement or decisions are made.[757] Indeed, being open to the present and the future, also stresses an appreciation of reality and thus of both constraints and possibilities in any given situation.[758] Moreover, '*prudence*' also calls for

---

not unfaithful and is not guilty of a breach of fiduciary duty'. The reference to *care*, *skill and prudence* or indeed, *diligence* as constituent elements of a fiduciary duty is not supported by legal authority.

[745] <https://www.unpri.org/fiduciary-duty/what-is-fiduciary-duty-and-why-is-it-important/247.article> accessed 21 September 2022.

[746] This is translated from the Greek word '*φρόνησῐς'* or the romanised *'phronesis'.* Meanwhile '*phronimos*' refers to an agent who practises '*practical wisdom*'. Aristotle, *The Nicomachean Ethics* (David Ross tr) (Oxford University Press 2009) Book VI *Intellectual Virtues*, Chapter 5, II40a23-31.

[747] Aristotle, *The Nicomachean Ethics*, Book 6 II40a 23 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[748] '*Household management*' is translated from the Greek word 'οἶκος' or the romanised 'oikos' from which the English term '*economics*' is derived.

[749] Aristotle, *The Nicomachean Ethics*, Book 6 II42a 9 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[750] Aristotle, *The Nicomachean Ethics*, Book 6 II42a 13 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[751] Aquinas, '*Summa Theologica*', II-II q.57 a V. J. Finnis, '*Aquinas: Moral, Political and Legal Theory'* (Oxford University Press 2004).

[752] Aquinas, '*Summa Theologica*', II-II q.57 a V.

[753] n 752 above.

[754] This is referred to as '*memoria*'.

[755] This is referred to as '*docilitas*'.

[756] This is referred to as '*solertia*'.

[757] n 752 above.

[758] n 752 above.

showing humility in making short-term and long-term decisions, and being conscious of one's limitations, and of its potential impact upon other humans and society.[759] In Kant's philosophy, '*prudence*' is a hypothetical imperative. A hypothetical imperative is based on the principle that whoever wills an end, insofar as he is rational, also wills the means to that end.[760] Thus the imperative that refers to the choice of means to one's own happiness, i.e. the prescription of '*prudence*', is hypothetical. The action is not commanded *per se*, it is rather a means to another moral purpose, i.e. treating customers fairly or long-term sustainability.

3.4. Loyalty

The duty of loyalty is a distinguishing obligation of a fiduciary. The principal is entitled to the single-minded *loyalty* of his fiduciary. This core liability has several facets. A fiduciary must act in good faith, they must not make a profit out of their trust, except through a reasonable payment for services provided, and with the fully informed consent of the principal, they must not place themselves in a position where their duty and their interest may conflict ('the duty-interest conflict'), they may not act for their own benefit or the benefit of a third person without the informed consent of their principal ('duty-duty conflict').[761] The 'duty-interest conflict' and, 'duty-duty conflict' are relevant in the equity markets where financial intermediaries act on their own account as proprietary traders, but also as agent for more than one principal with potentially conflicting interests. Some examples of conduct that breach the duty not to prefer one's own interest over his principal include executives setting their own salary and benefits, insider trading, broker churning to generate commission, broker recommending high-commission funds, broker front-running customer orders, and trading managed assets to benefit their own positions. Further examples of conduct that breach the duty not to prefer the interests of one principal over another principal include favouring one client over another, and allocating profitable trades to those favoured clients, allocating initial public offerings to favoured clients, allowing one client to front-run another, and allowing one client to arbitrage against another.

Meanwhile, Principle 8 *Conflicts of interest* requires a firm to manage conflicts of interest fairly, both between itself and its customers and between a customer and another client. This principle seeks to ensure that where there are conflicts of interest, firms should ensure fair treatment to all its customers through disclosure to customers and clients, Chinese Walls, and declining to act.

---

[759] Zamir Iqbal and Abbas Mirakhor, *Ethical Dimensions in Islamic Finance, Theory and Practice* (Palgrave Macmillan 2017).

[760] n 739 above.

[761] *Bristol* (n 635 above).

Moreover, it requires that a firm should not unfairly place its interests above those of its customers. The historic complexity of this principle is due at least in part to the need to have comprehensible rules relating to conflict of interest in the context of the UK securities markets following the 'Big Bang' in 1986. The 'Big Bang' brought an end to minimum commission charges and single capacity, and led to the formation of large financial conglomerates, which were novel to the UK.[762] The presence of so called 'integrated house' with subsidiaries of the same corporate entity, dealing with market making, agency broking, merchant banking and other financial services activities meant that the rules relating to conflicts needed to be more intricate and at the same time were more important than in the previous days of single capacity, and before ownership of brokers by banks was permitted.[763] Under English law, while much has been written regarding the regulation of conflicts between a fiduciary's duty to their principal and their personal interest, there has been little legal analysis of the situation where a fiduciary has a conflict between multiple sets of duties where performance of those duties is inconsistent.[764] All in all, it can be said that the law governing duty-duty conflicts of interests, is yet to be thoroughly and rigorously considered and developed in English law.

From a philosophical perspective, '*loyalty*' is regarded as a *particularist* virtue, as it privileges certain groups or individuals. Indeed, it is suggested that proponents of Kant's philosophy may have some difficulty in accommodating '*loyalty*' as a universal moral norm. Nevertheless, we may treat '*loyalty*' in a similar vein to the virtue of '*care*' or to Kant's duty of virtue '*beneficence'*.[765] As discussed above, Kant categorised the duty of '*beneficence*' as non-universal, and therefore an imperfect duty. This demands only the rejection of a maxim of refusing to give help, and not the adoption of a maxim of providing all help, which would be impossible.[766] Similarly, we could construct a rule rejecting the maxim of refusing to be '*loyal*' or to protect the interests of customers, and not the adoption of a maxim of being loyal to all customers, which would fail on the grounds of impossibility. Indeed, firms may have a fundamental obligation to be *loyal* to the interests of their customers, however what it will take to discharge this fundamental obligation will differ depending upon the needs of customers.

3.5. Fairness

[762] SIB - The Background to Investor Protection - Consultative paper No.38 - 1996. LCB Gower 'Review of Investor Protection' (Cmnd 9125 1984).

[763] n 244 above.

[764] Matthew Conaglen, 'Fiduciary regulation of conflicts between duties' (2009) 125 Law Quarterly Review 111.

[765] n 739 above.

[766] n 739 above.

The concept of '*fairness*', although easily recognised, is also elusive and difficult to define. Indeed, it is widely accepted that '*fairness*' is a subjective[767] and relative term and, therefore, determining whether a firm has acted fairly would depend upon all the relevant circumstances.[768] '*Fairness*' it is said, is grounded in social and moral values which cannot be justified, or refuted, by any objective process of logical reasoning. Moreover, such social and moral values are changeable across generations and cultures.[769] As discussed above, it has been suggested that fairness involves rationality and balance.[770] For example, there is an inherent need for fairness to be seen to be rational. Secondly, what was fair yesterday may not be fair today and the process of change must be achieved in a sensible way. The element of balance involves, firstly, the recognition of the existence of a balance between the interests of different customers, or between the interests of one or more customers and that of the firm; and, secondly, an obligation to ensure that the balance is reasonably held between those various interests.[771] Meanwhile, the extent to which the law of equity is imported by a duty to act with fairness is not clear. In English law, dissimilar to other legal systems, including New York law, there is no implied duty of good faith in contractual bargains.[772] This reflects a policy of preferring certainty over fairness.[773] Indeed, some of the various maxims of the English law of equity are closely relevant, including the notion that 'equality is equity'. On the other hand, others appear strictly foreign. The 'clean hands' doctrine for instance, implies and derives from a system of law which imposes rights and obligations generally. Subsequently, the doctrine denies an equitable remedy to someone who is in breach of his own obligations. The extent to which this doctrine is relevant to a system of principles which operates by imposing obligations on firms and not on their customers is questionable.[774] Nevertheless, it is argued that the logic that '*fairness*', which is grounded in social and moral values, cannot be justified or refuted by any objective process of logical reasoning is invalid. While social and moral values are changeable across generations and cultures, it does not follow that there can be no objective view of '*fairness'*. Secondly, even if the first premise were true, the second premise is still false. The fact that two cultures disagree on a number of issues, again, does not mean that there is no objective view of '*fairness*'.

[767] Navaratnam v Secretary of State for the Home Department [2013] EWHC 2383 (QB).

[768] R v Parole Board [2005] UKHL 45.

[769] Miller (Appellant) v. Miller (Respondent) and McFarlane (Appellant) v. McFarlane (Respondent) [2006] UKHL 24.

[770] n 714 above.

[771] n 714 above.

[772] Charles Kerrigan, 'Artificial Intelligence and Equity' (2017) 7 JIBFL 430.

[773] However, the English courts will recognise an express duty of good faith, and consumer contract regulations impose duties of fairness to address the imbalance of bargaining power between parties.

[774] n 714 above.

Moreover, it means that we have not searched for an objective view, or indeed, we have not discovered it.[775]

Meanwhile, it is accepted that seeking clarity on the nature of '*fairness*' gives rise to problems. It would seem difficult if not impossible to reflect on the notion of '*fairness*' without the aid of examples to illustrate cases of fair or unfair behaviour. Let us assume that we are presented with a set of facts and circumstances to assess our ability to agree upon whether a particular course of action was fair or not. However, we fail to reach agreement. By introducing specific examples, we begin to complicate the problem of analysis. This is because it is possible to disagree about whether a particular example illustrates unfairness in several ways. As a result, we are unable to make any sense of fairness. We might conclude that X and Y disagree over the nature of fairness and unfairness. However, this is not necessarily the case. Indeed, X and Y could agree on the nature of fairness and unfairness and still disagree in their judgements about whether specific actions are fair, without disagreeing about the nature of fairness. We may then mistakenly conclude that disagreement in such judgements justifies objecting to a particular theoretical account of fairness.[776] This is where practical judgement becomes relevant. The purpose of practical judgement is to shape action that has not been carried out. There are no particular actions to be judged, however actions may be shaped by ensuring that they satisfy a range of standards, rules, principles or laws that are considered in a deliberative process. For concepts and principles to be *a priori,* they must be inherent in reason, and revealed through its operation, rather than derived from experience or observation[777], i.e. empirical knowledge, and irrespective of heteronomous considerations. *A posteriori* judgement, which is based on empirical knowledge, only reveals what we actually do[778] and is therefore inappropriate for the purposes of identifying what we ought to do as unconditional requirements. Indeed, a reasonably worthwhile way to approach an inquiry into the meaning of '*fairness*' is to consider a list of possible accounts, rules or principles of fairness.[779] This could include the following:

- Fairness involves not disadvantaging others;
- Fairness involves being unbiased, impartial, or neutral in our treatment of others;

---

[775] Kara Tan Bhala, 'The philosophical foundations of financial ethics' in C Russo, R Lastra, W Blair (eds), *Research handbook on law and ethics in banking and finance* (Edward Elgar Publishing Limited 2019).

[776] Craig L Carr, *On Fairness* (Routledge 2017).

[777] n 739 above.

[778] Robert Johnson and Adam Cureton, 'Kant's Moral Philosophy', The Stanford Encyclopedia of Philosophy (2019), Edward N. Zalta (ed) <https://plato.stanford.edu/archives/spr2019/entries/kant-moral/> accessed 21 September 2022.

[779] n 776 above.

- Fairness involves sharing burdens or benefits equally, or maintaining a proper proportion between benefit and contribution;
- Fairness involves treating equal or similar cases equally or similarly;
- Fairness involves adhering to the rules;
- Fairness involves treating others with the concern and respect they deserve; and
- Fairness involves treating others as ends, not a means to an end.[780]

This list is suggestive and by no means exhaustive. There are likely to be additional accounts, rules or principles, however those would be included following a process of deliberation. However, this list does offer a reasonably comprehensive view of the various ways in which we might understand what it means to be fair.[781]

4. PROPOSED ETHICAL STANDARDS

It is well established that ethical principles, due to their indeterminacy, will never specify which particular acts should be performed.[782] Indeed, the duty to act with *integrity*, *due skill, care and diligence*, *prudence* and *loyalty,* and to act *fairly* towards customers do not *per se* provide practical guidance or specify which particular acts should be performed.[783] They may appear to provide firms with a degree of latitude when deciding how to best fulfil those requirements. However, principles of duty are not supposed to provide detailed instruction on what to do or how to pursue an end.[784] They are meant to show what *type* of action should be done, i.e. to act fairly towards customers, and, in a teleological sense, what *type* of ends should be pursued, i.e. the fair treatment of customers.[785] Kant determined that all normative rules, whether they are principles, standards, laws, regulations or guidelines are inherently incomplete. Moreover, indeterminacy cannot be eliminated by adding more rules, more requirements, more regulations or more guidance. Indeed, seeking to offer a complete set of rules, instructions or guidance would

---

[780] This reflects Kant's second formulation of the Categorical Imperative.

[781] n 776 above.

[782] Onora O'Neill, *Acting on Principle, An Essay on Kantian Ethics* (2nd edition, Cambridge University Press 2013).

[783] Further guidance is provided through the FSA's Treating Customers Fairly initiative (TCF) which was launched by the FSA in 2006 and remains core to the work of the FCA <https://webarchive.nationalarchives.gov.uk/20130202090909/http://www.fsa.gov.uk/pubs/other/tcf_towards.pdf> accessed 21 September 2022. The TCF outcomes were restated by the FCA in July 2013 <https://www.fca.org.uk/publication/corporate/fca-approach-advancing-objectives-july-2013.pdf> accessed 21 September 2022.

[784] Onora O'Neill, *From Principles to Practice: Normativity and Judgement in Ethics and Politics* (Cambridge University Press 2018).

[785] n 784 above.

be impossible, and difficult to adhere to where parties may ignore or flout their demands, or ultimately 'game' the system.[786] Therefore, ethical principles must be supplemented by practical judgement, which seeks to intermediate between principles and patterns of action[787] to find at least some way to respect and enact principles.[788] Nevertheless, it is argued that we should still reflect upon the sufficiency of our ethical standards, and consider how we could improve their ability to guide conduct, by either refining our current standards or introducing new ones.

4.1. Honesty and trustworthiness

The term '*integrity*' is complex. Moreover, it is used in such divergent ways that its value in guiding everyday conduct may be more limited than is generally supposed. We previously discussed one interpretation that '*integrity*' is concerned with the method by which we make moral decisions, rather than the actual moral substance. For example, 'integrity' emphasises the coherence between consequentialist, deontological and virtue ethics. Therefore, it refers to a person's integrative judgement and control of character, conduct and consequences.[789] Meanwhile, it is argued that 'integrity', as a *substantive virtue*, lacks clarity. On this basis, the duty to act with integrity should refer only to a firm's integrative judgement relating to control of character, conduct and consequences. Furthermore, the more intelligible terms – '*honesty'* and *'trustworthiness'* should be adopted. As discussed in Chapter 2 *Ethics* the quality of being honest is necessary for developing relationships of trust, which is a basic ethical requirement in most spheres of life. Conversely, dishonesty undermines the trust we place in one another. Indeed the fallout from the global financial crisis, precipitated numerous calls for a restoration of trust in the financial system.[790] However, it has been argued that a crisis of trust cannot be overcome by a blind rush to place more trust.[791] Meanwhile, calls for greater transparency will do little to assist with building or restoring public trust.[792] Transparency destroys secrecy, however it does not always prevent deception and deliberate misinformation, which undermine relations of trust.[793] Secondly, since transparency is only a matter of disclosing available materials, it does not

[786] Onora O'Neill, 'Justice Without Ethics' in John Tasioulas (ed) *Cambridge Companion to the Philosophy of Law* (Cambridge University Press 2020).
[787] Howard Davies, 'Ethics in Regulation' (2001) 10 Business Ethics: A European Review. Christopher J. Cowton, 'Integrity, responsibility and affinity: three aspects of ethics in banking'(2002) 11 Business Ethics: A European Review.
[788] Immanuel Kant, *On the Common Saying: That may be correct in theory but it is of no use in practice* (1793).
[789] n 704 above.
[790] Nicolas Morris and David Vines (eds), *Capital Failure: Rebuilding Trust in Financial Services* (OUP 2014).
[791] Onora O'Neill, *A Question of Trust* (Cambridge University Press 2002).
[792] It would appear that trust has receded as transparency has advanced. Indeed, the very technologies that spread information so easily and efficiently are every bit as good at spreading misinformation and disinformation.
[793] n 791 above.

mandate and often does not achieve '*good communication*' with the wider public.[794] Good communication has to take account of the specific capacities and concerns of the actual audiences, which achieve *intelligibility to* and *assessability by* the relevant audiences, and, therefore, an adequate basis for placing or refusing trust. We should therefore aim to place trust in other persons, institutions and complex processes with intelligent judgement. Moreover, trust should be placed in the claims and commitments of other persons and institutions, when there is appropriate evidence of their '*trustworthiness*' in the relevant matters.[795] Indeed, '*trustworthiness*' as a standard may also assist in situations where firms assume a position of trust and confidence, and in their fiduciary capacity owe their customers a duty of loyalty. As discussed above, given that the duty of loyalty is a non-universal and imperfect duty, what it will take to discharge this duty will differ depending upon the needs of customers. However, a customer may be in a better position to discern whether a firm is trustworthy, when appropriate evidence is available to them. In terms of the ethical foundations, the duty not to deceive,[796] which is corelative with '*trustworthiness*' is closely connected to the third formulation of Kant's Categorical Imperative, which provides that all individuals in society are rational beings with autonomy, who are capable of understanding the moral law, and knowingly and willingly act in accordance with the moral law. [797] Therefore, A should not deceive B. However, if they do so, A does not treat B as an autonomous person. Both A and B are rational beings who does not wish to be on the receiving end of deception. The moral principle, 'not to deceive' would be legislated neither by A or B, irrespective of whether they are agents or recipients of the deceptive actions. Meanwhile, we consider '*trustworthiness*', in addition to *fairness* or *justice*, and *honesty*, to be a universal virtue because it is required in order to cooperate and live together harmoniously.[798] On this basis, it is argued that, in addition to '*honesty*', we should also seek to adopt '*trustworthiness*' as part of our regulatory standards.

4.2. Fairness 2.0

[794] Onora O'Neill, 'Trust, Trustworthiness, and Accountability' in Nicholas Morris and David Vines (eds), *Capital Failure: Rebuilding Trust in Financial Services* (OUP 2014).

[795] This evidence may comprise a list of assessable criteria including past performance. However, it need not be perfect as trust would then become redundant.

[796] Bjørn K. Myskja, 'The categorical imperative and the ethics of trust', (2008) 10 Ethics and Information Technology 213.

[797] This provides, 'therefore, every rational being must so act as if he were through his maxim a legislating member of the universal kingdom of ends'.

[798] n 791 above.

In respect of '*fairness*', the logic that it is a *relative* term – grounded in social and moral values – and therefore cannot be justified or refuted by any objective process of logical reasoning is highly contestable. Moreover, it is argued that irrespective of cultural differences, we may discover an objective view of fairness, which transcends all cultures through the use of *a priori* reasoning. Indeed, a reasonably worthwhile way to approach an inquiry into the meaning of '*fairness*' is to consider a list of possible accounts, rules or principles of fairness. However, where two norms are intrinsically incompatible, and no amount of practical judgement seeking to enact the claims will ever resolve the conflict, we may resolve that the defect lies in our claims that both norms are justified.[799] For example, in addition to the obligations of *treating customers fairly*, firms are also bound by the norms of our free-market capitalist economy. In particular, a firm will be constrained by its duty to shareholders, in particular to maximise profits, and the principle to conduct business on *caveat emptor* terms. Indeed, the primary duty to maximise profits for shareholders provides a freedom from having to observe any ethical imperative other than the financial well-being of the firm.[800] Moreover, empirical accounts reveal that firms have sought to maximise profitability for shareholders at the expense of treating customers fairly. There are countless examples of firms seeking financial gains by selling wholly unsuitable or inappropriate products to customers or of firms taking advantage of their customers' vulnerabilities. Moreover, it would appear that the principle of *caveat emptor* has permeated the statutory framework, in particular the FSMA 2000[801] and the Financial Services Act 2012. For example, section 1C *Consumer protection objective* FSMA 2000 requires the FCA to have regard to, amongst other things, the general principle that consumers should *take responsibility for their decisions*[802] when considering what degree of protection for consumers may be appropriate.[803] Furthermore, section 3B *Regulatory principles to be applied by both regulators* FSMA 2000 requires the FCA and PRA to have regard to, amongst other things, the general principle that consumers should *take responsibility for their decisions*.[804] Indeed, the English Court's interpretation of the statutory framework and the COBS rules are informed by empirical or *a*

[799] n 784 above.

[800] Isaiah Berlin, 'Two concepts of liberty' in Anthony Quinton (ed), *Political philosophy* (OUP 1967).

[801] <https://webarchive.nationalarchives.gov.uk/20130202090909/http://www.fsa.gov.uk/pubs/other/tcf_towards.pdf> accessed 21 September 2022.

[802] During the pre-legislative scrutiny of the draft Financial Services Bill concerns were raised about this general principle <https://www.publications.parliament.uk/pa/jt201012/jtselect/jtdraftfin/236/236.pdf> accessed 21 September 2022.

[803] <https://webarchive.nationalarchives.gov.uk/20130202090909/http://www.fsa.gov.uk/pubs/other/tcf_towards.pdf> accessed 21 September 2022.

[804] FSMA 2000, s 3B(1)(b) *Regulatory principles to be applied by both regulators*.

posteriori judgement,[805] which reveal what we actually do, and are therefore inappropriate for the purposes of identifying what we *ought to do* as unconditional requirements. In such situations, we should aim to use *a priori* reasoning and consider all possible accounts, rules or principles of fairness, which may offer a comprehensive view of the various situations in which we might understand what it means to be fair.[806] However, it is also argued that we should seek to locate '*fairness*' within the context of pursuing a broader social cooperative venture.[807] Indeed, it has been suggested that we cannot appreciate the ethical significance of fairness, unless we see ourselves, not as independent and detached, but as interconnected social entities, in a myriad of different transactions, bargains and practices.[808] The need to be fair becomes apparent once we see ourselves as social beings, who engage actively with others in the adventures of a shared life.[809] Therefore, we should recognise the need for private sector organisations to fulfil a social purpose as required by the nature of the social licence between business and society.[810]

4.3. Sustainability and stewardship

The term '*prudence*' has a specific meaning in our regulatory standards, which is mostly concerned with the safety and soundness of firms, and how firms manage their financial risks. However, it is argued that prudence has a far broader philosophical meaning. '*Prudence*', similar to '*integrity*', is an adjunctive virtue.[811] It is concerned with *how* we make moral decisions, rather

---

[805] In Finch v Lloyds TSB Bank plc [2016] EWHC 1236 (QB) it was held that the banker–customer relationship is based on self-interest. Therefore, it is not plausible to argue that a contract to advise arose out of the banker–customer relationship where the commercial interests of the bank, on the one hand, and its customers, on the other, were diametrically opposed. In O'Hare v Coutts and Co [2016] EWHC 2224 (QB) the court held that Coutts & Co owed a duty to Mr and Mrs O'Hare to exercise reasonable skill and care when advising on investments. The judge considered that there was nothing intrinsically wrong with a private banker using persuasive techniques to induce a client to take risks the client would not take but for the banker's powers of persuasion, provided the client is willing and can afford to take those risks.

[806] n 776 above.

[807] n 776 above.

[808] n 776 above.

[809] Craig L Carr argues that if we think that social justice is chiefly concerned with the structure and function of practices that serve the collective needs of the community, a concern for fairness of these practices will go to the heart of social justice.

[810] Emma Borg, 'The thesis of "doux commerce" and the social licence to operate framework' (2021) 30 Business Ethics: A European Review 412 <https://doi.org/10.1111/beer.12279> accessed 21 September 2022. David Rouch, 'The social licence for financial markets, written standards and aspiration' in C Russo, R Lastra, W Blair (eds), *Research handbook on law and ethics in banking and finance* (Edward Elgar Publishing 2019). David Rouch, *The Social Licence for Financial Markets, Reaching for the End and Why it Counts* (Palgrave Macmillan 2019).

[811] Aquinas, '*Summa Theologica*', II-II q.57 a V.

than any moral substance. In Kant's philosophy, 'prudence' is a hypothetical imperative. The action is not commanded *per se*, it is rather a means to another moral purpose, i.e. dealing justly with other persons, treating customers fairly or long-term sustainability. In virtue ethics 'prudence' provides for an awareness of the social and physical environment, which is limited neither by time or space. The emphasis is upon openness and careful deliberation, before any hasty judgement or decisions are made. Moreover, '*prudence*' calls for showing humility in making short-term and long-term decisions, and being conscious of one's limitations, and of its potential impact upon other humans and society.[812] Indeed, the notions of '*sustainability*' and '*stewardship*' may be conceived in terms of '*prudence*'. In terms of '*stewardship*', this refers to 'the responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable benefits for clients, the financial system, the economy, the environment and society'.[813] Meanwhile, '*sustainability*' seeks to fairly distribute benefits and burdens among stakeholders, such as customers, shareholders, employees, suppliers, competitors, wider society and the natural environment.[814] Therefore, '*sustainability*' refers to maintaining a balance between stakeholder rights and interests, and, thereby, adding value to the whole of society. Furthermore, *sustainable finance* is the process of taking due account of the *environmental* and *social* considerations in investment decision-making, leading to increased investments in longer-term and sustainable activities.[815] The *environmental* considerations relate to combating climate change, and in general, preventing environmental degradation, meanwhile the *social* considerations concern, among others, inequality, inclusiveness, employment relations, investment in human capital and communities.[816] The advantage of this broad conception of '*sustainability*' is that it can provide a general framework within which those pursuing a set of potentially conflicting interests can meet and identify a shared or common purpose.[817]

4.4. Justice and legitimacy

---

[812] Zamir Iqbal and Abbas Mirakhor, *Ethical Dimensions in Islamic Finance, Theory and Practice* (Palgrave Macmillan 2017).

[813] <https://www.frc.org.uk/investors/uk-stewardship-code> accessed 21 September 2022.

[814] n 704 above. See also section 172(2) Companies Act 2006

[815] *Action Plan: Financing Sustainable Growth, Communication from the European Commission*, COM (2018) 97 final <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0097&from=EN> accessed 21 September 2022.

[816] David Rouch, *The Social Licence for Financial Markets, Reaching for the End and Why it Counts* (Palgrave Macmillan 2019).

[817] n 816 above.

The concept of justice includes *distributing benefits and burdens* fairly among people, justly *imposing penalties* on those who do wrong, and justly *compensating* persons for their losses when others have wronged them. Following the global financial crisis, the FCA and its predecessor, the FSA, imposed an unprecedented number of regulatory fines, brought enforcement proceedings against individuals for misconduct, and required banks provide compensation to their customers. Therefore, the pursuit of '*justice*' already forms the basis of our current regulatory system. However, it is suggested that we should seek a broader conception of justice which is *systemic*, *structural* and *prophylactic*. There is a broad academic consensus that the global financial crisis was not caused exclusively by individual or corporate misconduct, but also by structural features. For example, incentives to take excessive risks, because the rewards were privatised and the costs would be socialised, i.e. borne by the general taxpayer.[818] In a just system or structure, benefits and burdens are distributed fairly among people in society, so that the degree of inequality[819] currently prevailing in Western societies may be reduced.[820] Moreover, it provides *prophylaxis*, because it seeks to avoid or reduce inequalities, and prevent or limit the incidences of retribution and redress. The core foundation of this broader sense of justice is human dignity.[821] This idea may be found in both deontological and virtue ethics. Kant's Categorical Imperative provides that all human beings are rational beings who are valuable, possess dignity and are worthy of respect. Therefore, we should treat each person as an end, with respect and dignity. Meanwhile, in virtue ethics, Aquinas refers to '*observantia*', which is respect for human dignity that is implicit in all acts of justice.[822] Meanwhile, it has been argued that the process of legislating laws and regulations should be grounded in establishing, or re-establishing legitimacy of financial markets and financial institutions for our society.[823] Moreover, this sense of legitimacy is founded on the concepts of justice, human rights and ethics. Therefore, both financial institutions and markets should engage more closely with affected communities and society, which confer upon them functions and privileges. They must explain their rationale in creating wealth for the benefit of society as a whole, and not the privileged few. As a result,

---

[818] Lisa Herzog (ed), *Just Financial Markets? Finance in a Just Society* (OUP 2017).

[819] Thomas Piketty, *Capital in the Twentieth-First Century* (Harvard University Press 2014).

[820] The focus is on Western societies because these are the ones that have fully developed financial markets. This does not mean, of course, that the effects of financial markets are limited to these societies. Lisa Herzog (ed), *Just Financial Markets? Finance in a Just Society* (OUP 2017).

[821] Ronald Dworkin, *Justice for Hedgehogs* (Harvard University Press 2013).

[822] In the Summa Theologica, Aquinas distinguished nine virtues which are potentially connected with the cardinal virtue of '*justice*'. They are: religion (religio), piety (pietas), observance (observantia), gratitude (gratitudo), vengeance (vindicatio), truthfulness (veritas), amiability (amicitia), liberality (liberalitas), and equity (epieikeia). Alongside observance, he listed honor (dulia) and obedience (obedientia).

[823] Rosa M Lastra and Alan H Brener, 'Justice, financial markets, and human rights', in Lisa Herzog (ed), *Just Financial Markets? Finance in a Just Society* (OUP 2017).

communities and society may deem financial institutions and markets '*trustworthy*'.[824] Without this broader aim of legitimisation, the alternative approach is an increasing use of coercive, limiting and detailed rules and regulations, which are mostly deficient, but may also lead to perverse and unintended consequences.[825]

[824] n 816 above.

[825] The legislative process is costly and time-consuming. Meanwhile, it is argued that excessively detailed laws, regulations and rules will likely lead to incoherence and a culture of 'box-ticking' and regulatory arbitrage.

CHAPTER FOUR

STANDARDS IN GENERAL AI

1. INTRODUCTION

There are appreciably few legal and regulatory standards specific to AI given that it is still, broadly speaking, nascent. Meanwhile, the past five years have witnessed a proliferation in the number of ethical values, principles, codes and guidelines for AI by public, not for profit and private organisations. Some have argued that the haste to produce ethical AI standards is due to the perceived lacuna in legal and regulatory standards.[826] Indeed, our legal and regulatory standards do not develop in a vacuum. They are informed by our ethical values, which are complex, and deeply rooted in our cultures, history, philosophy, religion, political and economic ideologies. Moreover, we have not reached agreement on the ethical values relating to AI. Therefore, we may struggle to develop appropriate legal and regulatory standards for AI, which reflect the will of our society.[827] This chapter will begin by explaining the phenomenon of AI and related concepts with the purpose of demonstrating the importance of appropriate legal and regulatory standards. Subsequently, it will provide an overview of the current legal, regulatory and ethical standards for AI. It will critically assess the global convergence of ethical standards, and consider their sufficiency for the purposes of developing and governing AI. This chapter will also critically evaluate the broader and deeper ethical issues, which are essential to forming and shaping our legal and regulatory approach. It will recommend that we implement aspects of moral decision-making in AI systems to ensure that their choices and actions do not cause harm. In particular, that we design machines to behave ethically by building moral rules and principles, using an integrated ethical framework, by combining top-down, bottom-up and non-rational morality. However, this chapter will recognise that while AI, machines and robots may make moral decisions, they cannot entirely replace humans because they are unable to comprehend the ethical significance of their decisions.

1.1. The phenomenon of AI

[826] Patricia Shaw, ‘Context Matters: The Law, Ethics and AI’ in Matt Hervey and Matthew Lavy (eds), *The Law of Artificial Intelligence* (Sweet & Maxwell 2021).

[827] Julia Black and Andrew D Murray. ‘Regulating AI and machine learning: setting the regulatory agenda’ (2019) 10(3) European Journal of Law and Technology <http://eprints.lse.ac.uk/102953/4/722_3282_1_PB.pdf> accessed 21 September 2022.

AI is a term which was first coined by John McCarthy, an American computer scientist, at a conference in Dartmouth in 1956.[828] In an article for the layperson, John McCarthy explained that AI is the science and engineering of making intelligent machines, especially intelligent computer programs.[829] It is related to the task of using computers to understand human intelligence. However, it does not have to confine itself to methods that are biologically observable.[830] Meanwhile, intelligence is the computational part of the ability to achieve goals in the world.[831] The concepts of computability and computing machine were first introduced in 1936, twenty years earlier by Alan Turing. Alan Turing was among the first researchers to consider the possibility of using a computer to imitate aspects of human intelligence.[832] Indeed, he was aware of the similarities between computing machinery and human intelligence required for performing certain types of computation.[833] Nowadays, AI combines phenomenal increases in computer power and the availability of very large data sets for learning. It has therefore emerged as a powerful technology[834] which equals, but also challenges human performance.[835] The most prevalent form of AI is machine learning[836], which involves the application of statistical techniques to identify patterns in data.[837] In light of algorithms, vast data sets and immense processing power, machine learning is exceeding humans at many activities, including medical diagnosis, legal documentation review, writing poetry and music, the arts and painting, driving cars and playing recreational games such as chess, Jeopardy and poker.[838] In the years that follow, it is expected that AI will reach and exceed human performance on an increasing number of complex tasks.[839] Through machine learning, computers may essentially program themselves. The use of AI is now pervasive in all spheres of our lives, including both commercial and public

[828] Stuart Russell and Peter Norvig, *Artificial Intelligence: A Modern Approach* (3rd edn, Pearson 2016).

[829] <http://jmc.stanford.edu/articles/whatisai.html> accessed 21 September 2022.

[830] n 829 above.

[831] n 829 above.

[832] Matt Hervey and Matthew Lavy, 'The Law of Artificial Intelligence' in Matt Hervey and Matthew Lavy (eds), *The Law of Artificial Intelligence* (Sweet & Maxwell 2021).

[833] Alan Turing, 'Computing machinery and intelligence' (1950) LIX Mind, A Quarterly Review of Psychology and Philosophy.

[834] Stuart Russell and Peter Norvig, *Artificial Intelligence, A Modern Approach* (3rd edn, 2016).

[835] n 834 above.

[836] The House of Lords Select Committee on AI <https://publications.parliament.uk/pa/ld201719/ldselect/ldai/100/100.pdf> accessed 21 September 2022.

[837] n 832 above.

[838] n 832 above.

[839] n 832 above.

sectors.[840] This has provided effective solutions to previously unresolved problems, in particular, computer vision[841] and natural language processing.[842] A large number of countries around the world are investing in AI to drive economic growth and security. In the UK, a world leader in the development of AI, the level of investment is estimated to be the highest in Europe and the third in the world.[843]

1.2. The vitality of machine learning

Machine learning has generated most of the recent political, economic, legal and moral discussions regarding the impact upon society.[844] It is distinguishable from traditional approaches to AI, which are termed Good Old Fashioned AI or GOFAI, which includes the so-called 'expert', 'rule-based' or 'knowledge' systems that dominated the field of AI research from the 1950s until the 1980s.[845] Briefly, expert systems were created to gather expertise from a narrow domain, such as immigration screening or medical diagnosis, so that the human experts whose knowledge the system codified wouldn't need to apply their knowledge to every routine situation or question.[846] The two most important features of an expert system relate to the scope of its knowledge base and the manner in which knowledge is represented in the system. The expert's knowledge is stored in a knowledge base, which consists of facts, 'if-then' rules of logic, and relationships, expressed in symbolic form, and an inference engine. Symbolic AI is limited in that it is difficult to amend the rules after they are coded into the system.[847] These expert systems are no longer being actively developed. Indeed, they have been eclipsed by the rise of machine learning, which uses algorithms to learn from data without being specifically programmed.[848] This is a form of data processing which identifies statistical patterns from a large body of information, and subsequently learns its own responses to those conditions through a training program.[849] It has a

---

[840] <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/979892/A_guide_to_using_AI_in_the_public_sector__Print_version_.pdf> accessed 21 September 2022.

[841] <https://www.ibm.com/topics/computer-vision> accessed 21 September 2022.

[842] <https://www.ibm.com/cloud/learn/natural-language-processing?mhsrc=ibmsearch_a&mhq=natural%20language%20processing#toc-nlp-use-ca-9-lPnWP2> accessed 21 September 2022.

[843] n 832 above.

[844] n 832 above.

[845] n 832 above.

[846] n 832 above.

[847] n 832 above.

[848] n 832 above.

[849] n 832 above.

very wide range of application, including speech recognition, computer vision, risk prediction and medical diagnosis.[850] Machine learning relies upon many thousands or millions of instances of a thing from which patterns can be extracted and integrated into more useful insights.[851] This includes digitised data, and all machine-readable information. The basic premise underlying all machine learning is that datasets are rarely simply random aggregations of disconnected facts.[852] Indeed, the aim of machine learning is to uncover detectible patterns and regularities, with a view to drawing useful and often valuable inferences.[853]

There are various types of machine learning, which include supervised, unsupervised, reinforcement and hybrid machine learning.[854] In supervised machine learning, the aim of the algorithm is to learn a function that best approximates the relationship between input and output in the data.[855] In other words, the aim is to facilitate an accurate prediction.[856] A prediction is a mapping from input **x** to output **y**. The algorithm is trained on training data sets where the correct answers for certain data are known and the data are labelled accordingly.[857] In particular, the training provides a set of pre-labelled input-output pairs (**xi**, **yi**). For example, if we want to train a system to recognise the image of a cat or dog, we might consider **xi** as a feature vector, i.e. a data sample consisting of all the notable features of the image of a cat or dog, such as an ear, tail, fur or nose. Meanwhile, **yi** represents the set of class designations which correspond to those features, i.e. DOG or CAT. The supervisor in effect tells the system which features belong to a dog and which to a cat. If we say **D** = {(**xi**, **yi**)}, then D is the full training data set, or all the data used to train the system. As **D** increases, the more experience the system will have, and the more accurate the system will be in its predictions when used on inputs, which were not previously labelled by the supervisor.[858] There are two kinds of supervised machine learning algorithms – classification and regression algorithms.[859] In classification algorithms, the desired output is a

[850] n 832 above.
[851] n 832 above.
[852] n 832 above.
[853] n 832 above.
[854] n 832 above.
[855] n 832 above.
[856] Supervised learning techniques in financial services involve training a model on historical asset price returns, such as stock market returns to optimise asset allocation and maximise future portfolio returns. Richard Hay and Sophia Le Vesconte, 'Financial Regulation' in Charles Kerrigan (ed), *Artificial Intelligence Law and Regulation* (Edward Elgar 2022).
[857] n 856 above.
[858] n 856 above.
[859] n 856 above.

discrete label with a finite set of possible outcomes.[860] In cases of binary classification there are only two possible outcomes, for example, either something is a cat or is not a cat. Meanwhile, in cases of multilabel classification, there are more than two possible outcomes. In regression algorithms, we are seeking to predict continuous values.[861] By way of example, in the financial industry regression algorithms are applied to discover future forecasts, including calculating credit scores and loan eligibility.

Unsupervised machine learning is not guided and does not involve any form of labelling. There are no output data **yi** used in training, so **D** = {**xi**} and the algorithm seeks to sort the data. Therefore, the aim of unsupervised machine learning is not prediction, but description, in order to uncover patterns and associations in a given set of data, or to find correlations.[862] For example, let's say that we have a folder with images of cats and dogs that have not been sorted or labelled. An unsupervised learning algorithm will seek to sort and categorise these images on the basis of their similarities and differences.[863] Unsupervised machine learning is more emblematic of the process of human learning. For example, as babies and young children, in most cases we are not told what is what, we simply observe, and draw our own conclusions about the world, which will be either confirmed or otherwise when new information is given.[864] Meanwhile, in reinforcement machine learning, the algorithm seeks to learn through experience. This form of machine learning is suited to situations where an autonomous agent seeks to maximise rewards and minimise penalties through its actions.[865] A key aspect of this is learning by hindsight, or trial and error and learning how to adapt a strategy early on in a sequence in order to improve the overall reward. A good example of reinforcement machine learning is chess playing algorithms. A final point worth making is that some academics have cautioned that despite its many strengths there are limitations of machine learning. For example, where a trained system is shown an image whose pixels have been carefully modified by an adversary, even in a small way, the system will

[860] n 856 above.

[861] n 856 above.

[862] Unsupervised learning techniques in financial services involve seeking to uncover or analyse correlations or relationships in large data sets, or between apparently unrelated variables. For example, in seeking to model macroeconomic or specific asset prices.

[863] n 856 above.

[864] n 856 above.

[865] A reinforcement algorithm may be deployed in financial services by determining whether to continue to hold, or the buy or sell, a particular asset in response to new time series data relating to the price or return of a given universe of assets.

confidently misidentify the object.[866] On this basis, it has been suggested that algorithmic systems are more fragile than human reasoning.[867]

1.3. Deep learning and artificial neural networks

A further subfield of machine learning is deep learning which is based upon artificial neural network algorithms. The artificial neural network is a type of machine learning which broadly emulates the structure and activity of neurons in the human brain.[868] An artificial neural network is comprised of artificial neurons, which are all connected to one another through synapse-like pathways. Typically, it has an input layer, an output layer, which acts as the final decision-maker, and between the input and output layers, there are multiple hidden layers of nodes. Each node receives data from numerous nodes 'above' it, and sends data to several nodes 'below' it.[869] The nodes attach a 'weight' to the data they receive, and provide a value for that data. In addition, the connection between each node has a weight that determines the impact of one node upon another. If the data does not meet a certain threshold, it is not communicated to another node. An artificial neural network learns by adjustments made to its synaptic weights, which reflects the behaviour of neurons in the human brain. For example, in the Hebbian[870] learning theory, when neurons are co-active, their connection is reinforced.[871] Neural co-activation refers to the process of learning and memory rehabilitation through the association of concepts, or associative learning.[872] For example, learning will consist of the association of terms, such as 'hot' and 'pain'. The connection between these concepts is reinforced when 'hot' and 'pain' co-occur through habitual instances of burning or scalding.[873] In an artificial neural network, these experiences are simulated through exposure to a training data set and algorithms which adjust the synaptic weights between the nodes.[874] This is done through the method of back-propagation, which computes the error between the expected results and the actual result of an artificial neural network, and adjusts the neural network's weight to reduce the error.[875] Deep learning uses many hidden layers of artificial neurons to solve more complex problems. The 'deep' in deep learning

---

[866] n 856 above.

[867] n 856 above.

[868] n 856 above.

[869] n 856 above.

[870] This theory is named after the neuropsychologist Donald Hebb.

[871] n 832 above.

[872] n 832 above.

[873] n 832 above.

[874] n 832 above.

[875] n 832 above.

refers to these hidden layers of nodes in an artificial neural network.[876] Indeed, deep learning has become the impetus for a number of breakthroughs in AI. There has been a recent proliferation of the use of deep learning models in financial services, in particular in banking and credit, including credit risk prediction and macroeconomic prediction; in investments such as prediction, including exchange rate predictions, stock market predictions, and oil price predictions; in pure investments, such as portfolio management, and in stock trading. [877]

1.4. Strong and weak AI

Current machine learning systems are regarded as narrow or weak AI. They involve automation of narrow and specific tasks, without the ability to generalise.[878] For example, Deepmind's AlphaGo has narrow intelligence because it can only play the game 'Go'. They lack self-awareness or consciousness, they cannot think for themselves, and they lack an appreciation of real aspects of the world, such as causal relationships.[879] Moreover, they lack the moral capacity to assess and determine whether an act is right or wrong.[880] However, machine learning systems are being utilised in situations in which they may have to make moral decisions without human oversight.[881] Present examples of weak or narrow AI include speech and image recognition, self-driving cars, and robot care-givers for the elderly.[882]

A number of AI researchers are gearing towards creating a form of intelligence which currently does not exist. This is described as 'artificial general intelligence'[883] (AGI) or strong AI.[884] Strong AI means the development of machines and autonomous systems able to perform cognitive capabilities and intellectual abilities indistinguishable from human beings.[885] Such machines will

---

[876] n 832 above.

[877] Jian Huang, Junyi Chai, Stella Cho, 'Deep learning in finance and banking: A literature review and classification' (2020) 14 Frontiers of Business Research in China <https://doi.org/10.1186/s11782-020-00082-6> accessed 21 September 2022.

[878] Charles Kerrigan, 'Artificial Intelligence and Equity' (2017) 32(7) BJIBFL 430.

[879] n 832 above.

[880] n 832 above.

[881] n 832 above.

[882] n 832 above.

[883] The House of Lords AI Report explains that artificial general intelligence would essentially be intellectually indistinguishable from a human being.

[884] Strong AI describes a machine with an intellectual capability similar to or superior than a human. Charles Kerrigan, 'Artificial Intelligence and Equity' (2017) 32(7) BJIBFL 430.

[885] Teresa Rodríguez de las Heras Ballell, 'Legal challenges of artificial intelligence: modelling the disruptive features of emerging technologies and assessing their possible legal impact' (2019) 24(2) Uniform Law Review 302.

be designed and programmed to learn and interact with the world in the manner that a human would. They will exhibit creativity, carry out actual thought and reasoning, possess sentience and consciousness, create new concepts and solve new problems.[886] Moreover, their behaviour and purpose will adjust and change in response to what they have previously learned. It has been conjectured that as soon as we develop a sufficiently intelligent AI, an intelligence explosion[887] or 'singularity'[888] may follow. This will ultimately lead to the creation of super-intelligent machines with capabilities that greatly exceed those of human beings.[889]

1.5. Super-intelligence and the control problem

Super-intelligence means any intellect that radically outperforms humans in practically every field. While we have had AI for decades, this has been represented either in low levels or high levels in limited domains, such as playing chess or doing specific and individual tasks better than any humans. By super-intelligence we are referring to general intelligence at the level that greatly exceeds the greatest human geniuses over the whole domain of human interest.[890] There are many who believe that super-intelligence requires strong AI, i.e. all the intellectual powers of a human being, including consciousness and understanding. They doubt whether strong AI will ever be possible, and therefore whether we should be concerned about the control problem.[891] Equally, there are AI researchers who suppose that there can be AGI without strong AI.[892] They claim that it is possible for a machine to have the ability to learn and perform different tasks across various domains even it doesn't have consciousness and understanding.[893] A positive perspective, depending on its technological capabilities, is that if super-intelligence can be developed to benefit society, it might resolve present-day problems which have so far proven challenging to human intelligence.[894] However, super-intelligence also presents unprecedented ethical challenges on a global and systemic level. It has been argued that if super-intelligent AI systems are not designed and deployed purposefully to respect our human values, the actions of such

---

[886] Lucinda Pointing, 'Artificial Intelligence at work: questions of law and ethics' (2019) 481 Health Safety Bulletin 12.

[887] Nick Bostrom, *Superintelligence, Paths, Dangers, Strategies* (OUP 2014).

[888] n 887 above.

[889] n832 above.

[890] Rabbi Jonathan Sacks, BBC Radio 4, Morality in the 21st Century <https://www.bbc.co.uk/sounds/play/p06k4xsj> accessed 21 September 2022.

[891] n 832 above.

[892] n 832 above.

[893] This is similar to the position adopted by Alan Turing who considered that 'artificial consciousness' could imitate human consciousness.

[894] Nick Bostrom and Eliezer Yudkowsky, 'The ethics of artificial intelligence' in Keith Frankish and William M Ramsey, *The Cambridge Handbook of Artificial Intelligence* (Cambridge University Press 2014).

systems could lead to global catastrophe and human extinction.[895] 'Perverse instantiation' refers to the manner in which a particular task is interpreted and executed by super-intelligence in an unexpected and catastrophic way.[896] For example, if we direct a super-intelligent machine to make humans smile, this may be understood to be optimally performed by forcibly altering human facial muscles, rather than making people happy.[897] The super-intelligent machine need not care about human values, as its final goals are simply whatever is programmed.[898] The super-intelligence control problem refers to the challenge of understanding and managing these risks.[899] There are potential ways of mitigating the threat of an existential catastrophe or the destruction of mankind caused by super-intelligence systems. For example, we could adopt the short-term solution of capability control or limiting the agent's abilities, and the long-term goal of motivation selection, or influencing the agent to consider human values by directly coding human values into the AI.[900] However, these options have significant problems that still need to be resolved.[901]

1.6. AGI vs human-level intelligence

In computer programming literature, the terms AGI and 'human-level intelligence' are sometimes used interchangeably.[902] As explained above, 'general intelligence' refers to the ability of AI to perform a wide array of tasks. As a consequence, AGI means AI that is able to perform a wide range of tasks.[903] Meanwhile, it has been suggested that human intelligence is holistic, which involves cognitive, emotional, and moral intelligence.[904] On this basis, 'human-level intelligence' refers to AI that has similar kinds of intelligence to human beings, including cognitive, emotional, and moral intelligence.[905] Contrastingly, AGI is often referred to as the ability to perform a wide range of tasks cognitively or rationally speaking only.[906] Therefore, it would appear that AGI is distinguishable from 'human-level intelligence' as it does not have

[895] Joel Thomas, 'In defense of philosophy: a review of Nick Bostrom, Superintelligence: Paths, Dangers, Strategies' (2016) 28:6 Journal of Experimental & Theoretical Artificial Intelligence 1089 <https://DOI.org/10.1080/0952813X.2015.1055829> accessed 21 September 2022.

[896] n 887 above.

[897] n 887 above.

[898] n 887 above.

[899] <https://futureoflife.org/2015/11/23/the-superintelligence-control-problem/> accessed 21 September 2022.

[900] n 887 above.

[901] n 887 above.

[902] n 832 above.

[903] n 832 above.

[904] n 832 above.

[905] n 832 above.

[906] n 832 above.

emotional or moral intelligence.[907] Let's consider an example. The super-intelligent paper clip machine is designed to maximise the production of paper clips.[908] For this purpose, it has the power to convert everything in the universe, including human beings into paper clips. On this description, the machine appears to have cognitive super-intelligence. However, it is unlikely to have emotional and moral intelligence, since a morally intelligent being *ought to* be able to recognise the immorality of killing human beings, and of exploiting the world's limited resources for the purpose of creating more paper clips. It is therefore arguable that this super-intelligent paper clip machine has artificial super general intelligence, rather than super human-level intelligence.[909] From one view, for an entity to have moral intelligence and be a moral agent it should be able to take something as a moral reason for action.[910] Further, an entity may take something as a moral reason for action only if it can understand why something is a reason or action.[911] In addition, in order to understand that certain kinds of moral reasons exist, an entity will need to appreciate what it is like to be in a given state. For example, to appreciate that there is a moral reason not to inflict pain on non-consenting sentient creatures, or to kill or to lie to humans, one may need to understand the sensation of pain, to experience the threat and fear of the loss of one's life, or to be the recipient of lies. Therefore, an entity that does not have consciousness will not be able to appreciate these various states. Moreover, the entity will be unable to recognise the moral reason not to inflict pain, not to kill or not to tell lies.[912] It is therefore unlikely that human-level AI, which requires consciousness and understanding, will ever be possible. However, there are hypothetical reasons to suggest that a human-level AI with consciousness and understanding might still exist.[913] This has been illustrated with the example of 'Gradual Substitution', a hypothetical treatment for early onset Alzheimer's Disease which involves the replacement of organic brain cells with inorganic substitutes.[914] The person undergoing the treatment retains consciousness and understanding throughout, and at the end of the substitution process. The next section of this chapter will now provide an overview of the legal and regulatory standards for the general use of AI.

2. REGULATORY STANDARDS

[907] n 832 above.

[908] n 887 above.

[909] S Matthew Liao (ed) *Ethics of Artificial Intelligence* (OUP 2020).

[910] n 832 above.

[911] n 832 above.

[912] n 832 above.

[913] n 832 above.

[914] n 832 above.

2.1. General UK regulatory infrastructure

The UK currently takes a devolved approach to the regulation of AI. There is no single regulatory body which is tasked with overseeing and coordinating AI regulation.[915] However, there are a number of governmental, regulatory and advisory agencies, which form part of the UK's AI regulatory infrastructure. These include the UK Government Office for AI[916], the Centre for Data Ethics and Innovation[917], the Information Commissioner's Office (the 'ICO')[918], the UK Government AI Council[919], the FCA, the BoE, and the PRA. Moreover, the materials published by these agencies have consisted mostly of non-binding guidelines and recommendations on AI ethics and safety, transparency, explainability, and governance issues. For example, the UK Government Office for AI has produced guidelines for public authorities on understanding AI ethics and safety, which recommend building a culture of responsible innovation, fairness and trustworthiness.[920] Meanwhile, the ICO and the Alan Turing Institute have published guidance on explaining decisions made with AI, which includes potential areas for explanation, including rationality, responsibility, data , fairness and safety and performance.[921] The ICO and Alan Turing Institute guidance, while not legally binding, specifies good practice, and may therefore be expected to form important guidance on the ICO's interpretation of the Data Protection Act 2018.[922]

2.2. The FCA, BoE and PRA

The FCA, BoE and the PRA have recently announced their increasing scrutiny of firms using AI in financial services. In 2019, the FCA explained that it would take a context-specific and risk-driven approach to regulating AI. While high-level principles, such as transparency and accountability were helpful in providing a regulatory framework, the FCA considered that governance would provide an important safeguard against harms caused by the use of AI in

[915] Jacob Turner, 'International Regulation of Artificial Intelligence' in Matt Hervey and Matthew Lavy (eds), *The Law of Artificial Intelligence* (Sweet & Maxwell 2021).

[916] This body was established in January 2018 as a joint unit between the UK Government's Department for Digital, Culture, Media and Sport (DCMS) and the Department for Business, Energy and Industrial Strategy (BEIS).

[917] An advisory body set up by the UK government within DCMS.

[918] The national data protection agency and the UK's representative to the European Data Protection Board.

[919] The AI Council is a non-statutory expert committee of independent members established to provide advice to the UK Government and high-level leadership of the AI ecosystem in the UK <https://www.gov.uk/government/groups/ai-council> accessed 21 September 2022.

[920] n 915 above.

[921] n 915 above.

[922] n 915 above.

financial services.[923] Similarly, the PRA has emphasised the need for senior executives to understand the functioning and risks of AI used within their firms.[924]

In terms of legally binding provisions, the regulatory standards specified in the FCA Handbook and PRA Rulebook discussed in Chapter 3 *Standards in Banking and Finance* will apply to the financial industry, whether firms are providing traditional, or AI generated financial services. For example, firms will be required to ensure that they are transparent and able to explain AI decision making, and monitor their use of AI to ensure fairness to customers, thereby avoiding breaches of Principle 6 *Customers' interests*; Principle 7 *Communicating with customers*; and Principle 9 *Customers: relationships of trust* of the FCA's Principles for Businesses.[925] The COBS also sets out a number of obligations that have wide application, which will be relevant to the use of AI. In particular, COBS 2.1 *Acting honestly, fairly and professionally*, COBS 4.2 *Fair, clear and not misleading communications*, and COBS 9 *Suitability*.[926] Moreover, firms that are authorised directly by the FCA or the PRA who as authorised principals engage appointed representatives to carry on regulated activities will be liable for all their acts and omissions[927] in respect of customers and third parties, and will be accountable to the FCA and PRA.[928] This means that firms will need to demonstrate that they have awareness and understanding that the appointed representative is employing AI technology.[929]

The SYSC *Senior Management Arrangements, Systems and Controls* (SYSC) in the FCA Handbook, and the PRA Rulebook's *General Organisational Requirements* require most regulated firms in the UK to have in place robust governance arrangements. Those include a clear organisational structure with well-defined, transparent and consistent lines of responsibility; effective processes to identify, manage, monitor and report the risks it is or might be exposed to; and internal control mechanisms, including sound administrative and accounting procedures and effective control and safeguard arrangements for information-processing systems, or to meet

---

[923] Christopher Woolard, FCA Executive Director of Strategy and Competition, 'The future of regulation: AI for consumer good' (2019) <https://www.fca.org.uk/news/speeches/future-regulation-ai-consumer-good> accessed 21 September 2022.

[924] 'Artificial Intelligence Public-Private Forum', Final Report (2022) <https://www.bankofengland.co.uk/-/media/boe/files/fintech/ai-public-private-forum-final-report.pdf> accessed 21 September 2022.

[925] Richard Hay and Sophia Le Vesconte suggest that while these Principles impose broad-brush obligations, they are open to considerable degree of interpretation when it comes to the use AI.

[926] Rebecca Keating and Laura Wright, 'AI and Professional liability', in Matt Hervey and Matthew Lavy (eds), *The Law of Artificial Intelligence* (Sweet & Maxwell 2021).

[927] FSMA 2000, s 39(3) *Exemption of appointed representatives*.

[928] n 926 above.

[929] n 926 above.

similar types of governance requirements. However, it has been suggested that the existing governance frameworks may be inadequate to identify and mitigate effectively all risks relevant to the use of AI and will need to be adapted.[930] Moreover, SYSC 8 *Outsourcing*, which provides rules for general outsourcing, will be relevant in the context of AI systems given that individual components of AI models and underlying infrastructure and platforms are mostly provided by third parties. In addition, the nature of third party services provided to a firm in this context may have significant implications in respect of the firm's operational resilience.[931]

The SM&CR which brings together the SMR and the Certification Regime will also apply to the use of AI in financial services. Indeed, the FCA and the PRA have clarified that the adoption of systems centred on AI or machine-learning technologies will not reduce the existing accountability burden on humans.[932] The SMR focuses on individuals performing a senior management function specified by the FCA or the PRA, and imposes accountability requirements on the most senior decision makers. The SM&CR requires firms to maintain statements of responsibilities for each of their senior managers, and may be required to maintain a management responsibilities map in relation to the assignment of responsibilities. This will include the senior managers of the business lines or functions within which AI has been deployed, and may extend also to the senior manager with responsibilities for creating or providing specialist input into the AI, such as the Head of IT or Operations.[933] Notwithstanding, the use of AI in financial services will challenge the current approach to allocating accountability. For example, it is unclear whether responsibility will be shifted both towards the board, but also to more junior, technical staff, which may ultimately mean less responsibility for front-office and middle management. This will bring a significant change to how individual responsibilities are allocated, which has been traditionally applied to senior individuals rather than employees in operational functions.[934]

In addition to the above regulatory provisions, the FCA publishes non-Handbook guidance, such as thematic reviews, which may also provide useful instruction for firms which use AI

[930] n 856 above.

[931] n 926 above.

[932] James Proudman, Executive Director of UK Deposit Takers Supervision, Bank of England, 'Managing Machines: the governance of artificial intelligence' (2019) <https://www.bankofengland.co.uk/-/media/boe/files/speech/2019/managing-machines-the-governance-of-artificial-intelligence-speech-by-james-proudman.pdf?la=en&hash=8052013DC3D6849F91045212445955245003AD7D> accessed 21 September 2022.

[933] n 926 above.

[934] Linklaters, 'Artificial Intelligence in Financial Services, Managing machines in an evolving legal landscape' <https://lpscdn.linklaters.com/-/media/files/insights/2019/september/linklatersartificialintelligenceinfinancialservicesmanagingmachinesinanevolvinglegallandscapesept201.ashx?rev=2c497d44-32d1-42e4-8f1c-f4f6eb272b82&extension=pdf> accessed 21 September 2022.

technology. This guidance may have a particular focus on AI technology, or it may be of general application. For example, the FCA guidance on assessing suitability will provide helpful guidance on what is considered appropriate practice, which will also be relevant where AI systems are deployed.[935] The FCA and the BoE have also published a report on the use of AI and machine learning in the financial industry.[936] This provides information on approaches taken within the industry in relation to performance monitoring and validation of models, to ensure systems are being used as designed, and processes used by firms to mitigate risks, including alert systems, humans in the loop, back-up systems, guardrails and kill switches.[937] Meanwhile, the FCA has published industry guidance[938] and highlighted the importance of appropriate due diligence when choosing an AI provider and evaluating their experience, transparency in the use of AI, decision-making and purposes, sufficient interpretability or explainability of the AI, board-level responsibility in understanding how AI is being employed, ongoing staff training in the use of AI, continuing monitoring in the outputs of AI systems, and keeping abreast of industry developments to ensure that AI systems are current and that staff are employing AI appropriately.[939] In 2020, the FCA and the Alan Turing Institute announced their public policy collaboration to develop practical guidance for firms relating to AI and machine learning transparency in the financial industry.[940] Subsequently, in 2021 the Alan Turing Institute published a report 'AI in Financial Services', commissioned by the FCA, which provides a comprehensive conceptual framework for examining AI's ethical implications and defining expectations about AI transparency in the financial industry.[941]

3. LEGAL STANDARDS

[935] n 926 above.

[936] Bank of England and Financial Conduct Authority, 'Machine learning in UK financial services' (2019) <https://www.fca.org.uk/publication/research/research-note-on-machine-learning-in-uk-financial-services.pdf> accessed 21 September 2022.

[937] n 936 above.

[938] Philippe Bracke, Karen Croxson and Carsten Jung, 'Explaining why the computer says 'no'' <https://www.fca.org.uk/insight/explaining-why-computer-says-no> accessed 21 September 2022.

[939] n 938 above.

[940] <https://www.turing.ac.uk/news/ai-transparency-financial-services> accessed 21 September 2022.

[941] Florian Ostmann, and Cosmina Dorobantu, 'AI in financial services' (2021). The Alan Turing Institute <https://www.turing.ac.uk/sites/default/files/2021-06/ati_ai_in_financial_services_lores.pdf> accessed 21 September 2022.

In England and Wales, there are few legal standards which are specific to AI.[942] There is no generic AI statute, and there are no specific rules governing liability for AI.[943] Moreover, AI technology and systems, whether embodied or not[944] have not been granted the status of legal personality.[945] Nevertheless, we may find discrete elements of so-called ‘AI law’ in legislation governing autonomous or self-driving vehicles[946], in provisions for copyright works and designs generated by computers[947], in legal precedent on the patentability of computer programs[948], and in data protection law.[949] However, the existing and well-established legal principles and doctrines are likely to apply to AI technologies and systems. There is healthy optimism amongst English jurists that the common law will adapt to address novel issues of liability, particularly in the field of tort law, without any immediate need for legislation.[950] Indeed, principles of contract and tort law may apply in terms of providing protection from harm, allocating risks and imposing liability where economic harm is inflicted.[951] As explained above, there is scarce legal authority for liability concerning economic loss in the context of AI technology and systems.[952] As a result, parties will typically claim in respect of duties owed under contract and to a certain extent, under tort.[953] Moreover, given that AI technology and systems are unlikely to obtain legal personality in the immediate future, responsibility for their acts or omissions will remain with their human or corporate creators, suppliers and users.[954]

[942] n 832 above.

[943] n 832 above.

[944] Toby Riley-Smith QC and Lucy McCormick, ‘Liability for Physical Damage’, in Matt Hervey and Matthew Lavy (eds), *The Law of Artificial Intelligence* (Sweet & Maxwell 2021).

[945] Simon Chesterman ‘Artificial Intelligence and the Limits of Legal Personality’ (2020) 69(4) International and Comparative Law Quarterly 819.

[946] Toby Riley-Smith QC and Lucy McCormick, ‘Liability for Physical Damage’, in Matt Hervey and Matthew Lavy (eds), *The Law of Artificial Intelligence* (Sweet & Maxwell 2021).

[947] n 832 above.

[948] n 832 above.

[949] n 832 above.

[950] ‘Legal statement on cryptoassets and smart contracts, UK Jurisdiction Taskforce’ <https://35z8e83m1ih83drye280o9d1-wpengine.netdna-ssl.com/wp-content/uploads/2019/11/6.6056_JO_Cryptocurrencies_Statement_FINAL_WEB_111119-1.pdf> accessed 21 September 2022

[951] This chapter will focus on liability for economic loss.

[952] n 832 above.

[953] In tort, pure economic loss is not recoverable however foreseeable it may have been.

[954] n 832 above.

3.1. Law of contract

The basic rules of contractual liability provide that a person bears liability under express agreement, or impliedly by operation of the common law, by statutory provision, such as the Supply of Goods and Services Act 1982, or by mercantile custom.[955] As discussed in Chapter 3 *Standards in Banking and Finance* parties may expressly restrict or exclude liability for economic loss, subject to statutory limitation, i.e. reasonableness under UCTA 1977. These basic principles will continue to apply even where the subject matter of a contract, or part of its performance, involves AI technologies.[956] However, there are novel and special issues which arise in respect of AI.[957] The primary novelty and potential complexity relates to the identification, definition and assignment of the various AI-related risks. Where AI-related risks specific to the subject matter of the contract have not been addressed, and the parties rely on the generic requirement for suppliers to use reasonable care and skill, the primary challenge will likely be whether a malfunction or unanticipated outcome of an AI process amounts to a breach of duty. This will be particularly challenging where parties are aware that an AI technology may provide unpredictable and unexplainable results. There are potentially three contractual scenarios in which liability for economic loss may occur. Those involve contracts for the supply of AI goods; contracts for the supply of AI-related services; and contracts for the supply of services *using* AI. Where the AI comes in the form of 'goods', its supply will fall within the scope of the SGA 1979. A contract will fall within the scope of the SGSA 1982 where it involves the provision of services which comprise or relate to AI. For example services for processing data through an AI technology.

3.1.1.Sale of Goods Act 1979

---

[955] n 832 above.

[956] n 832 above.

[957] A question of fundamental importance is whether AI systems can enter into contracts on behalf of another party. There is also potential for disputes where AI systems behave in an unexpected manner, and a counterparty seeks to claim the contract is void for mistake. Quoine Pte Ltd v B2C2 Ltd [2020] SGCA (I) 2 (CA (Sing)). The position may become more complicated where two AI systems contract with each other. Traditional concepts such as offer, acceptance and mistake are based on human knowledge and motivation and are not easy to apply where there is no human is involved. Linklaters, 'Artificial Intelligence in Financial Services, Managing machines in an evolving legal landscape' <https://lpscdn.linklaters.com/-/media/files/insights/2019/september/linklatersartificialintelligenceinfinancialservicesmanagingmachinesinanevolvinglegallandscapesept201.ashx?rev=2c497d44-32d1-42e4-8f1c-f4f6eb272b82&extension=pdf> accessed 21 September 2022.

The SGA 1979 requires the AI technology to be fit for purpose, of satisfactory quality, and to meet its description.[958] Indeed, it will be unusual for the contract not to either expressly or impliedly require certain standards of quality, or of appropriate descriptions in terms of the capabilities of the AI technology. However, it may not be entirely clear how quality and capability is determined. Firstly, an AI technology may be deployed as part of a wider solution provided by multiple AI technology providers, or indeed provided partly by the supplier, and partly by the customer. Therefore, it may be difficult to establish which AI technology is at fault. Secondly, even where an AI technology is being used as a standalone system, it may be difficult to attribute lack of expectation to a substandard quality or fitness. For example, an AI-based trading solution which adopts a specific model that recommends market entry and exit points, may consistently underperform. However, this may be due to flaws in the trading strategy or the unforeseen prevailing market conditions, rather than any defect in the quality or fitness of the AI solution. Thirdly, where it appears that the AI solution has not produced the anticipated or desired outcome, this may be the function of the algorithm or the way it has been implemented. Although it may also be the result of the data that has been used to train the system, the training process, or even purely bad luck. Fourthly, assessing whether an AI technology is operating as envisaged may prove difficult. For example, determining whether a credit scoring tool is effective may require analysis of a significant volume of credit decisions, and judging whether it is fit for purpose may require assessing its behaviours in multiple respects, including how the risk of bias is managed. Finally, an AI technology that appears to be operating well, may in fact be subject to serious and harmful bias. Moreover, it does not necessarily mean that it is accurate, robust, secure and reliable.[959]

Therefore, determining whether an AI supplier has failed to meet implied standards of quality and fitness will require some insight into how the tool is designed and built, the extent to which the assumptions, models and principles governing its design have been validated, its efficacy, safety and general behaviour over a period of time.[960] Indeed, it has been suggested that similar to ensuring airline safety, we will also need an infrastructure of technologies, norms, laws and institutions to ensure the safety of general AI technologies, particularly those that are safety-

[958] Sections 13 and 14 of SGA 1979. See Annex 1 which includes standards of fitness, satisfactory quality and transparency (fit for description), which, although inadequate, may be best reflected in the AI standard of non-maleficence. The SGA 1979 is relevant for the regulation of AI standards in financial services, in light of financial firms' reliance upon third party suppliers, and the regulators' ability to regulate the use of AI through the SYSC Sourcebooks, and regulate third party suppliers.

[959] 'Explaining Decisions made with AI' <https://ico.org.uk/for-organisations/guide-to-data-protection/key-dp-themes/explaining-decisions-made-with-ai/> accessed 21 September 2022.

[960] n 832 above.

critical, that process personal data, or that are used in public or consumer spheres.[961] Nevertheless, what constitutes satisfactory quality or fitness for purpose will be context specific. For example, the quality infrastructure required for an AI technology whose function is to provide personalised video recommendations will be different from one which seeks to provide recommendations on financial investments, or which seeks to provide early cancer diagnoses, or even operate a safety-critical nuclear facility. Whether a supplier of AI technology has met the quality and fitness standards will likely involve complex issues of fact. Meanwhile, the lack of universally recognised and accepted standards outside the safety-critical and personal data applications implies that assessment in a particular commercial context will often be fraught, uncertain and, as a result, commercially unsatisfactory for both supplier and customer. Therefore, parties will usually define verifiable, measurable standards that the AI technology must satisfy, rather than rely on generic quality and fitness terms such as those implied by the SGA 1979.

3.1.2.Supply of Goods and Services Act 1982

Contracts for the supply of AI related services may be distinguished from contracts for the supply of AI goods for three reasons. Primarily, rather than supplying AI technologies, contracts for AI related services may include services for the processing of data through an AI technology, training and bespoke development of AI models, verification of AI solutions, or the design of governance and workflow processes for the use of AI technology. Secondly, contracts for AI related services are governed by the implied terms set out in the SGSA 1982. These include the requirement to carry out the services with reasonable care and skill in accordance with section 13 of the SGSA 1982. Thirdly, the scope of responsibility of the supplier of AI services is potentially far wider than that of the supplier of AI goods. For example, the supplier of AI goods will be primarily concerned with the quality, fitness and capabilities of the AI technology. Meanwhile, the supplier of AI services, which is involved in the verification or governance processes, will be concerned with the end-to-end process in which the AI product is being employed. Therefore, the emphasis for contracts of AI related services will be less on the AI product and more on the overall approach to AI exploitation.

While the question of whether an AI service provider has exercised reasonable care and skill will be highly fact-sensitive, there are certain factors which will help to determine the standard to which the AI service provider is likely to be held.[962] Firstly, we should consider the nature of the

[961] Miles Brundage and others, 'Towards Trustworthy AI Development: Mechanisms for Supporting Verifiable Claims <https://arxiv.org/pdf/2004.07213.pdf> accessed 21 September 2022.
[962] n 832 above.

AI technology. For example, the standard for exercising reasonable care and skill will differ for an algorithm which relates to personal video or music preferences, and a safety critical AI technology. Moreover, given the rapid pace of development of AI technology, applications and processes, what is reasonable for solutions implemented in 2021 may not be reasonable in 2022. Secondly, the role of the AI technology in the overall end-to-end process is significant. If AI is fundamental to the process, the standard expected of the AI service provider will be greater than if the AI had a peripheral function. Thirdly, where the AI services involve the processing of personal data or commercially sensitive data, the service provider will need to ensure a level of care commensurate with the sensitivity of the data. Service providers will need to ensure the reliability of the processing results, that there are no unintended leaks of sensitive data, and that use of the data is appropriate and suitably risk assessed. Fourthly, where the AI service provider has responsibility for process verification and governance, the requirement to exercise reasonable care and skill will involve implementing a robust and reliable process, which is able to detect and respond to anomalous or errant behaviour of the AI technology. Where process verification and governance do not fall within the AI service provider's remit, the duty to exercise reasonable care and skill will likely involve appreciating the governance processes which are in place, where responsibility lies, and how they operate. Fifthly, it is suggested that not all anomalous or errant behaviour will have a commensurate impact. Therefore, the AI service provider will need to identify probable or possible failures or harms, taking steps to mitigate or manage those failures or harms commensurate with the impact of any failure. Finally, where the AI services are being provided in a regulated environment, the duty to exercise reasonable care and skill will likely involve ensuring compliance with the relevant regulatory standards. For example, a provider of an algorithmic credit reference service may fall below the standard of reasonable care and skill if it designed or operated its service in a way that the data controller was unable to comply with explainability requirements. Moreover, regulatory standards are likely to evolve over time, and therefore suppliers of AI services will need to keep abreast of changing regulatory standards to avoid being held negligent.

The above parameters, which seek to assist in determining whether an AI service provider has met the standard of reasonable care and skill, are primarily concerned with governance. This is relevant in the context of machine learning technology which may produce unexpected and unpredictable results and, therefore, ought to be monitored and managed given that they cannot be wholly controlled.[963] As discussed earlier in this chapter, the current regulatory environment also tends to focus upon governance arrangements. This may influence how the courts determine

[963] n 832 above.

whether standards of care for AI services are satisfied.[964] In addition to governance requirements, the standard of care will be informed by generally accepted industry norms and the factual or contextual background. Irrespective, we may conclude that there is a considerable degree of uncertainty as to the standard to which an AI service provider will be held given the lack of legal precedent, the variety of circumstances in which AI may be deployed, and the diverse characteristics of service provers who may utilise them.

3.2. Law of negligence

The common law tort of negligence requires a claimant to establish the existence in law of a duty of care, a breach of the duty of care by the defendant, a causal connection between the defendant's careless conduct and the damage, and the damage to the claimant is not so unforeseeable as to be too remote. One of the fundamental principles in tort is that there can be no liability in negligence for pure economic loss,[965] which does not result from any physical damage to or interference with his person or tangible property. This includes wasted expenditure or loss of a gain, profits or profitability.[966] Indeed, it has been observed that in a competitive economic society the conduct of one person is always liable to have economic consequences for another. In principle, it is not essential for economic activity to have regard to the interests of others. It is justifiable by the actor having regard to his own interests alone.[967] Meanwhile, there are other tortious causes of action which protect economic interests. For example, the tort of deceit and the tort of passing off protect economic interests where losses result from deliberate or reckless statements, or conduct designed to induce the claimant to act against his interests, or to damage those interests with third parties. Moreover, the recovery of economic loss in negligence was permitted in Hedley Byrne v Heller[968] where a special relationship existed, which made it appropriate for the defendant to protect the claimant's economic interests.

Where financial services are being provided, there is likely to be a duty in tort co-extensive with contractual duties, which will apply to liability for economic loss.[969] However, for non-

[964] However, the influence of regulatory standards, in particular the COBS, upon court decisions relating to financial misselling claims has proven weak.

[965] Danny Busch and Cees Van Dam, 'A Bank's Duty of Care: Perspectives from European and Comparative Law' in Danny Busch and Cees Van Dam (eds), *A Bank's Duty of Care* (Bloomsbury 2017).

[966] n 965 above.

[967] Perrett v Collins [1998] 2 Lloyd's Rep. 255.

[968] [1964] AC 465 (HL).

[969] Henderson v Merrett Syndicates Ltd [1995] 2 AC 145; Titan Steel Wheels Ltd v Royal Bank of Scotland Plc [2010] EWHC 211 (Comm).

contracting third parties, the position is more restrictive.[970] While each case will depend upon its own facts, the courts will apply a multi-test approach, which involves consideration of whether there was an assumption of responsibility; the three-fold test of reasonably foreseeable loss, sufficient proximity, and whether it is fair, just and reasonable to impose a duty; and the incremental test by reference to established categories.[971] The standard of care applied to the tort of negligence is objective,[972] which is the degree of care, competence and skill to be expected from a person engaging in the activity or function undertaken by the defendant.[973] Therefore, a financial adviser is expected to satisfy the standards of the ordinary skilled man exercising and professing to have the special skill of financial adviser,[974] taking into account all the factors relevant to the client's position and warning of any pertinent risks, or relevant matters the client might have neglected. The principle in Bolam v Friern Hospital Management Committee,[975] which seeks to protect parties who act in accordance with a rational and recognised practice in the profession, is also relevant.[976] In accordance with professional liability generally, the level of care expected will depend upon the nature of the financial adviser's business and the field of their practice, however not the length of experience.[977] In addition, the regulatory standards imposed on a financial adviser by a regulatory body will inform the level of duty required of them at common law.[978] However, there are shortcomings with the law of negligence as applied to AI. In particular, it is not clear how standards for AI's behaviour will be established,[979] or whether AI may exercise reason and therefore whether there exists a 'reasonable AI standard'.[980] Some have questioned whether we should abandon reasonableness and approach negligence solely on the basis of causation.[981] In respect of foreseeability, it is argued that the behaviour of AI is likely to become increasingly unforeseeable, except perhaps at a very high level of abstraction and generality. Indeed, complex machine learning systems may produce outputs which are difficult to foresee, even by designers of the systems. This is because they examine high volumes of data

[970] Gorham v British Telecommunications Plc [2000] 1 WLR. 2129 and Seymour v Ockwell [2005] EWHC 1137.

[971] Commissioners of Customs & Excise v Barclays Bank [2006] UKHL 28.

[972] n 965 above.

[973] n 965 above.

[974] Lenderink-Woods v Zurich Assurance Ltd [2016] EWHC 3287 (Ch).

[975] [1957] 1 W.L.R. 582.

[976] This did not apply in O'Hare v Coutts & Co [2016] EWHC 2224 (QB) which involved advice as to the risks inherent in a transaction.

[977] *Seymour* (n 970 above)

[978] *Seymour* (n 970 above); Shore v Sedgwick Financial Services Ltd [2007] EWHC 2509 (Admin).

[979] Jacob Turner, *Robot Rules, Regulating Artificial Intelligence* (Palgrave Macmillan 2019).

[980] n 979 above.

[981] Richard Mawrey QC, 'The Law of Artificial Intelligence Publication Review' (2021) 27(3) Computer and Telecommunications Law Review 87.

and detect patterns which are unobservable to humans. Moreover, increasingly AI is more than simply an appliance. AI is developing independence and control of its own. On this basis, we should seek to understand how this might influence the overall standard to exercise reasonable care and skill and how it is discharged. Let's consider an example. A robo-adviser provides auto-generated investment advice or information to consumers on a financial services website. A retail consumer reasonably relies upon the robo-adviser's investment advice. If we assume that the consumer is owed a duty of care by the owner of the AI technology, this gives rise to fact-specific questions as to the scope of the assumed responsibility and whether it has been discharged. The first step in assessing liability, irrespective of the nature of the AI system deployed, is to recognise that there will always be a legal person, whether natural or artificial, i.e. an individual or a corporation, who has responsibility for providing the automated investment advice to the consumer and will therefore incur legal liability.[982] In circumstances where *a human* agent or employee provides investment advice, their principal or employer (and occasionally the investment adviser) assumes a duty of care, which generally arises as a result of the consumer having reasonably relied on the skill and judgement of the investment adviser.[983] Indeed, whether or not the same duty of care arises where the consumer is dealing with an AI system, will depend upon the nature of the AI services being provided. For example, the robo-adviser may provide the consumer with access to computerised data processing or calculation tools only.[984] This may be described as 'weak AI', which, as explained earlier, means the automation of narrow and specific tasks, without the ability to generalise.[985] On this basis, the duty of care will be limited to taking care to ensure that the system was properly specified, designed and configured. This is comparable to existing situations where owners are responsible for reasonable care in the operation and maintenance of their machines, such as vehicles.[986] Moreover, if a person is objectively expected to fulfil the duty of care because the robo-adviser is presented as a *human*,[987] then the advice or information will be assessed with reference to what a reasonable person carrying out that function would have produced in the circumstances.[988] In other words, where a consumer is led to believe that the robo-adviser is exercising some form of intelligent judgement,

---

[982] David Quest QC, 'Robo-advice and artificial intelligence: legal risks and issues' (2019) 1 Journal of International Banking & Financial Law 6.

[983] *Hedley* (n 968 above).

[984] Whether a robo-adviser involves giving investment advice, i.e. a regulated activity, is also relevant to whether the FCA may bring disciplinary proceedings, or whether a private person has a right of action under section 138D Actions for damages FSMA 2000 for breaches of COBS 9.2 *Assessing suitability*.

[985] Charles Kerrigan, 'Artificial Intelligence and Equity' (2017) 32(7) BJIBFL 430.

[986] PT Civil Engineering v Davies [2017] EWHC 1651, where it was alleged that poor maintenance of a vehicle caused injury.

[987] In this case, there may be other causes of action, e.g. misrepresentation.

[988] Rupert Jackson, *Jackson & Powell on Professional Liability* (8th edn, Sweet & Maxwell 2019).

and reasonably relies on that, the duty assumed by the AI provider in respect of the advice will likely be assessed on that basis, however simplistic or mechanistic the system.[989] However, the rationale for this approach is not that negligence relates to how the AI performs, but that poor performance of the AI is prima facie evidence of negligence in the design, deployment or validation of the AI, or in the decision to use AI in the first place in circumstances where human performance was needed.[990]

Nevertheless, as AI becomes normalised and starts to outperforms humans, our expectations of the person who is objectively expected to fulfil the duty of care will likely intensify.[991] This may be described as 'strong AI', which refers to a machine with an intellectual capability equivalent, or superior to a human. The distinction between 'weak' and 'strong' AI is of practical significance.[992] In the first scenario above, it would be unrealistic to treat the robo-adviser as exercising reasonable care and skill comparable to a *human* investment adviser. The AI system is doing nothing more than processing data in a deterministic way, in accordance with its algorithmic programming.[993] Indeed, any reasonable skill and care will have already been exercised in the design and development of the algorithms. If the consumer maintains that the advice was wrong or negligent, it will need to be explored whether there were any faults in the configuration or coding of the algorithm. However, in a more sophisticated, intelligent system, where the robo-adviser appears to be exercising its own judgement, there may be no other practical way of analysing how it arrived at its conclusions.[994] It will not be sufficient for the AI service provider to demonstrate simply that it had taken care in selecting and training the robo-adviser.[995] We will need to consider whether the robo-adviser exercised reasonable care and skill in providing the investment advice. Indeed, over time, in terms of meeting the standard of care, the tortfeasor will be assessed against what an AI system would have done, rather than what a person would have done.[996] On this basis, we ought to determine the standard against which the robo-adviser should be judged. As discussed above, a *human* financial adviser is required to satisfy the standards of the ordinary skilled man exercising and professing to have the special

[989] For example, in the 1960s, patients who were dealing with ELIZA, a computer-simulated psychiatrist, were convinced that they were interacting with a human doctor. n 982 above.

[990] See discussion of *res ipsa loquitur* below.

[991] The failure to use AI for a task for which it was known to outperform humans may itself be viewed as negligent.

[992] Indeed, the development of automated advisory systems is highly specialised, and investment firms are likely to use specialist third parties to provide this technology. This raises the question of allocation of risk and liability when something goes wrong.

[993] n 832 above.

[994] n 832 above.

[995] n 832 above.

[996] Ryan Abbott, *The Reasonable Robot: Artificial Intelligence and the Law* (Cambridge University Press 2020).

skill of financial adviser.[997] The claimant will be required to prove this standard by adducing expert evidence. However, it is not clear what would be expected of a robo-adviser. It may not be appropriate to assess a robo-adviser on the basis of *human* advisory skills, which are difficult to implement on a computer.[998] Robo-advisers may be less likely to succumb to human frailties such as excessive self-interest and greed, and therefore fiduciary rules such as the 'no-conflict rule' may be futile.[999] It has been suggested that a suitable approach will be to establish the standard by reference to some conception of how robo-advisers perform generally.[1000] However, the challenge with this approach is that the market is not sufficiently well-developed or homogenous for any practical comparisons to be made.[1001]

In the event that we are able to determine the standard of care, there is the further challenge of assessing whether the standard has been satisfied. Where negligence claims are brought against *human* financial advisers, the court will test whether they acted with reasonable care and skill by examining how they arrived at their conclusions. The *human* financial adviser may be asked to explain the matters they considered, and to justify their recommendations. It will not be enough to simply test whether the financial adviser reached the right conclusion. The extent to which a robo-adviser may be tested in a similar way is doubtful. Indeed, the rule of evidence *res ipsa loquitur*, which allows for inferences to be drawn is unlikely to assist in the context of AI.[1002] In particular, the courts may be reluctant to presume negligence for a sophisticated and emerging technology where the tool is likely to be under the control of multiple parties, and the supplier may provide *an* explanation. Indeed, the real issue might involve challenging this explanation where there is inequality of bargaining positions.[1003] One possibility might be for the courts to consider whether the robo-advice was within the range of outcomes that a competent robo-adviser might have given, which is analogous to the approach adopted in surveyor negligence cases.[1004] Another possibility might be for robo-advisers to be equipped with explainable system logic information, in the event that its conclusions are disputed.[1005] In due course, we may consider the role of AI as analogous to that of an employee or independent contractor. The European Commission has maintained that an owner of AI should have vicarious liability where

[997] *Lenderink* (n 974 above)

[998] n 832 above.

[999] n 832 above.

[1000] n 832 above.

[1001] n 832 above.

[1002] i.e. *the thing speaks for itself*.

[1003] n 832 above.

[1004] This is analogous to the approach adopted in valuation negligence cases only.

[1005] This is often referred to as explainability.

an AI is used in a way that is functionally equivalent to a human auxiliary.[1006] This would be judged on the basis of the standard of care for human auxiliaries or, as soon as AI outperforms humans, with reference to a reasonable AI.[1007] Secondly, where a human or corporate entity's responsibility for the actions of AI is limited, because the defendant engaged AI technology from a third party supplier which retains control, the analogy to an independent contractor might be more apposite. On this basis, the defendant will not be liable unless it is contributorily negligent, through either the poor selection of the AI, or deficient maintenance, monitoring and/or control.[1008]

3.3. Data protection and confidentiality obligations

Given that all AI systems will necessarily involve the processing of data, the UK General Data Protection Regulations (GDPR) will apply. In addition, parties may contractually agree to provide access to data. This will usually involve conditions of use, transfer restrictions, requirements to preserve the integrity and safety of data, and assistance in respect of any complaints or requests from third parties. In addition, parties may be subject to a contractual and tortious duty of confidentiality, which may be owed to both contracting parties and third parties. Data protection and confidentiality are outside the scope of this chapter.

3.4. Discrimination

AI systems which incorporate algorithmic decision-making may be discriminatory in their decision-making and results.[1009] This may happen because of the labels, classifications or proxies applied by programmers, as well as any unresolved bias of the underlying data. For example,[1010] a business applies an algorithm which is used to select candidates for job interviews, to review CVs, and decide upon whom to recruit. The algorithm is trained on *past* data within the business.

[1006] European Commission, Directorate-General for Justice and Consumers, Liability for artificial intelligence and other emerging digital technologies (2019) <https://data.europa.eu/doi/10.2838/573689> accessed 21 September 2022.

[1007] n 1006 above.

[1008] Lavy and Munro argue that the employee/independent contractor approach comes close to granting AI legal personality, which would likely require legislation.

[1009] Sandra Wachter, Brent Mittelstadt and Chris Russell, 'Why fairness cannot be automated: Bridging the gap between EU non-discrimination law and AI' (2021) 41 Computer Law & Security Review <https://doi.org/10.1016/j.clsr.2021.105567> accessed 21 September 2022.

[1010] Florian Ostmann, Policy Theme Lead at The Alan Turing Institute, 'Artificial Intelligence and Data Economy: A Business and Human Rights Approach', British Institute of International Comparative Law 2020 <https://www.biicl.org/events/11387/artificial-intelligence-and-data-economy-a-business-and-human-rights-approach> accessed 21 September 2022.

However, it is seeking to predict the *future* likelihood that a candidate will perform well in their work. The algorithm reviews past promotion records, and looks at the types of people that have been promoted to senior positions. If we assume that the business's promotion culture is biased towards men, irrespective of equivalent skills and performance, women are less likely to be promoted to senior positions. There will be a bias in the data that shows that men are much more likely to be promoted to senior positions. The algorithm measures past promotion which is a poor measure of future performance. This is a widespread problem since data is very rarely perfect. A second example[1011] concerns gender-based discrimination. It is a fact that men tend to have higher rates of road traffic accidents and drive more expensive cars. Therefore, there is a plausible empirical relationship between expected car insurance risk and gender. However, even if the data measures what it is supposed to measure, you still have a discriminatory effect. It is important to distinguish these two examples because what is required to solve these problems will be different.

In the first example, we need to correct the flawed data problem. In the second example, we must consider what else we should do to adjust the algorithm. There is also the further problem of correlations and indirect discrimination. Direct discrimination involves protected characteristics as set out in the Equality Act 2010 such as gender, which are used as a decision criterion. Meanwhile, indirect discrimination is where gender is not used as a criterion. Nevertheless, the impact of decisions will affect gender groups differently as a result of correlations. Both direct and indirect discrimination are unlawful under the Equality Act 2010. For example, we may not use gender to predict insurance premiums, however given that men drive more expensive cars they will pay higher premiums. What is needed to prevent discrimination in both cases is different. To address direct discrimination, we may rely on the option of not using a feature as an input variable, however this does not protect against indirect discrimination. Meanwhile, indirect discrimination can be very difficult to detect especially with complex machine learning algorithms, which involve a wide range of input variables. It is also difficult to imagine ideas of potential disparate impacts. Therefore, it is necessary to consider the different methods of testing the algorithm to ensure that there is no indirect discrimination.

Another example concerns price discrimination by algorithms. This form of discrimination involves fixing the price of a product in accordance with the preferences of the individual and not the scarcity of the item. It has been suggested that this tendency conflicts with two normative concepts. Those are the welfare state, and non-discrimination. The concept of the welfare state implies solidarity between members of the society, and that individual risks are hedged by the social institutions. All members contribute to the common good according to their own economic

[1011] n 1010 above.

means and provide a social safety net for the least advantaged members of society. In case of misfortune or personal emergency, the insurance protects against damage. However, this form of insurance only works if there is enough solidarity between the members, and if each member expects an economic advantage in participation, or if the members are required to participate in the system. The use of price algorithms makes it possible to assess exact risk profiles for each individual customer. The effect of these tendencies has strong implications for fairness considerations. The fact that AI is able to create individual risk profiles may lead people with low risk being less willing to stand up for people with higher risk, if they become aware and have an economic opportunity not to pay for those risks. Indeed, AI may cause distribution conflicts and revive ethical questions such as whether the healthy should pay for the unhealthy; whether the risk averse should pay for the risk friendly; and whether the wealthy should pay for the poor. The question of the welfare state is related to the issue of discrimination, as an increasing degree of liberalisation may result in the discrimination of weaker groups in society.[1012] The next section of this chapter will review the ethical standards concerning general AI.

4. ETHICAL STANDARDS

The past five years have witnessed a proliferation in the number of principles, protocols, codes and guidelines for ethical AI, promoted by private companies, research institutions, governments and public sector organisations.[1013] They are mostly based on abstract principles which seek to guide designers in their work, and reflect in their computer programming.[1014] It has been suggested that the rush to produce ethical standards is a response to growing ethical concerns about super-intelligence, unintended, and possibly disastrous consequences for humanity, the unethical use of personal information, and the amplification of bias.[1015] Others have considered that the perceived lacuna in the law in relation to the application to AI has caused a proliferation of ethical standards.[1016] Some academics have argued that seeking convergence on abstract ethical principles and values is more productive than seeking to apply traditional deontological, virtue ethics or utilitarian frameworks.[1017] Max, Kriebitz and Websky observe that ethicists

[1012] Raphael Max, Alexander Kriebitz and Christian Von Websky, 'Ethical Considerations About the Implications of Artificial Intelligence' in Leire San-Jose, Jose Luis Retolaza, Luc van Liedekerke (eds), *Handbook on Ethics in Finance* (Springer 2021).

[1013] Brett Mittelstadt, 'Principles alone cannot guarantee ethical AI' (2019) 1 Nature Machine Intelligence 501 <https://doi.org/10.1038/s42256-019-0114-4> accessed 21 September 2022.

[1014] Antonio Argandoña, 'Ethics and Digital Innovation in Finance' in Leire San-Jose, Jose Luis Retolaza, Luc van Liedekerke (eds), *Handbook on Ethics in Finance* (Springer 2021).

[1015] n 826 above.

[1016] n 826 above.

[1017] n 1012 above.

typically come across a range of different theories for evaluating the ethical soundness of practices carried out by humans or technologies. They argue that because the implications of these theories on human behaviour are contradictory and self-conflicting, rather than look for a traditional ethical approach, we should seek to identify the minimum consensus on AI ethical principles.[1018] For example, they refer to Floridi and Cowls' conceptual framework for outlining principles and challenges of AI.[1019] These principles include *beneficence*, *non-maleficence*, *autonomy*, *justice* and *explicability*, which are largely derived from research ethics. Moreover, this framework is based on the existing guidelines on AI such as the Montréal Declaration for a Responsible Development of AI,[1020] the Asilomar Principles,[1021] and the House of Lords Select Committee on Artificial Intelligence Report.[1022] Max, Kriebitz and Websky claim that this conceptual framework provides for a flexible interpretation of the principles, which is important for streamlining ethical principles to AI applications. Furthermore, they consider these principles not as strict normative guidelines, but rather as a form of architecture for framing the debate and discussing the relevant aspects of AI and its ethical approach.[1023]

While there is a general consensus that AI should be ethical, there is disagreement about both *what* constitutes ethical AI and *which* ethical requirements, technical standards and best practices are needed for its fulfilment.[1024] In their study on the global landscape of AI ethics guidelines, Jobin, Ienca, and Vayena collected and analysed a corpus of principles and guidelines on ethical AI to assess whether there is a global convergence.[1025] Their study reveals that there are eleven overarching ethical values and principles. Those are *transparency*; *justice and fairness*; *non-maleficence*; *responsibility*; *privacy*; *beneficence*; *freedom and autonomy*; *trust*; *dignity*; *sustainability*; and *solidarity*. The study also reveals significant semantic and conceptual divergences in both how those ethical principles are interpreted. Jobin, Ienca, and Vayena observed a global convergence emerging specifically around five ethical principles of

[1018] n 1012 above.

[1019] Luciano Floridi and Josh Cowls, 'A Unified Framework of Five Principles for AI in Society' (2019) 1 Harvard Data Science Review 1 <https://doi.org/10.1162/99608f92.8cd550d1> accessed 21 September 2022.

[1020] <https://recherche.umontreal.ca/english/strategic-initiatives/montreal-declaration-for-a-responsible-ai/#:~:text=The%20Montreal%20Declaration%20for%20a,Palais%20des%20congr%C3%A8s%20de%20Montr%C3%A9al> accessed 21 September 2022.

[1021] <https://futureoflife.org/2017/08/11/ai-principles/> accessed 21 September 2022.

[1022] n 836 above.

[1023] n 1012 above.

[1024] Michael Anderson and Susan Leigh Anderson, 'Machine ethics: creating an ethical intelligent agent' (2007) 28(4) AI Mag 15.

[1025] Anna Jobin, Marcello Ienca and Effy Vayena, 'The global landscape of AI ethics guidelines' (2019) 1 Nature Machine Intelligence 389 <https://doi.org/10.1038/s42256-019-0088-2> accessed 21 September 2022.

transparency; *justice and fairness*; *non-maleficence*; *responsibility*; and *privacy*. Nevertheless, they found a divergence of opinion regarding how those principles should be interpreted, why they are deemed important, what issue, domain or actors they relate to, and how they should be implemented. They concluded their study by reiterating the importance of integrating guideline-development efforts with substantive ethical analysis, and adequate implementation strategies.[1026] We will now consider some of these values before critically assessing the usefulness of abstract ethical principles for AI.[1027]

4.1. Global convergence of standards

4.1.1.Transparency

Transparency is the most prevalent principle in the current literature, appearing in over eighty five per cent of all current sets of global standards. Transparency relates to *who* has visibility of what *information* and in what *form*. The '*who*' may include internal stakeholders such as operators, controllers, risk managers, internal auditors and senior management, or external stakeholders, such as regulators, external auditors, and end-users; the '*information*' may include anything relevant to the use of AI, including the fact that AI has been used, how the model operates, the presence and effects of any data biases and/or explanations as to the relationships between inputs and outputs; and the '*form*' relates to how the information is presented so as to be meaningful to the relevant stakeholder.[1028] Transparency includes explainability[1029], interpretability, forms of communication and disclosure, and relates to human–AI interaction, automated decisions and the purpose of data use or application of AI systems. To provide greater transparency, those developing or deploying AI systems are expected to ensure wholesome disclosure of information, including the use of AI, source code, data use, evidence base for AI use, limitations, laws, responsibility for AI, investments in AI, and possible impact. Transparency also means intelligible and non-technical explanations, which are auditable by humans. Other measures emphasise oversight, interaction and mediation with stakeholders and the public, and enabling whistleblowing.[1030]

[1026] n 1025 above.

[1027] Yi Zeng, Enmeng Lu, Cunqing Huangfu, 'Linking artificial intelligence principles' (2018) <https://doi.org/10.48550/arXiv.1812.04814> accessed 21 September 2022.

[1028] n 856 above.

[1029] Explainability refers to the ability of a model to produce outputs that can be coherently rationalised or interpreted by reference to the corresponding inputs and the features of the model. Therefore, explainability is one (but not the sole) component of transparency.

[1030] n 1025 above.

4.1.2. Justice, fairness and equity

Justice is mostly expressed in terms of fairness, and of the prevention, monitoring or mitigation of unwanted bias and discrimination.[1031] Some standards refer to justice as respect for diversity, inclusion and equality. Others refer to access to justice, such as the ability to appeal or challenge decisions, or the right to redress and remedy. In addition, standards of fairness stress the importance of fair access to AI, data and the benefits of AI. Sources from the public sector focus upon AI's impact on the labour market, and the need to address broader democratic or social or economic imbalance issues. Those standards which focus upon the risk of biases within datasets emphasise the importance of procuring and processing accurate, fulsome and diverse data, particularly training data. Moreover, some standards refer to the preservation and promotion of justice, which are to be pursued through technical solutions such as standards or normative encoding; transparency[1032], by providing information and promoting public awareness of existing rights and regulations; testing, monitoring and auditing; strengthening the rule of law and the right to appeal, recourse, redress or remedy; and systemic governmental action and oversight; an interdisciplinary or diverse workforce; and improved inclusion of civil society, or other relevant stakeholders with increased distribution of benefits.[1033]

4.1.3. Non-maleficence

Non-maleficence covers general claims for safety and security, and may stipulate that AI should never cause foreseeable or unintentional harm to individuals and society.[1034] This standard is one of the earliest of AI principles and traces its history to Isaac Asimov's laws of robotics. In particular, it refers to the avoidance of specific risks or potential harms. For example, intentional misuse through cyberwarfare and malicious hacking, for which risk-management strategies are recommended. The concept of harm is construed broadly, and includes discrimination; violation of privacy; bodily harm; loss of trust or skills; radical individualism; the risk that technological progress might overtake regulatory measures; and negative impacts on long-term social well-being, infrastructure, or psychological, emotional or economic aspects. Guidelines for the prevention of harm focus on technical measures and governance strategies, including early

[1031] n 1025 above.

[1032] In the context of AI, fairness typically refers to whether AI-based decisions concerning the end-users are both fair in fact, i.e. they are free from harmful biases and discrimination, and capable of being understood and challenged.

[1033] n 856 above.

[1034] Max, Kriebitz and Websky claim that in light of the interconnectedness of financial markets, the failures of AI, similar to a run on a bank, could result in the destabilisation of entire financial systems.

interventions at the level of AI research, design, technology development and deployment. Technical solutions include in-built data quality evaluations, security and privacy by design, and the establishment of industry standards. Governance strategies include cooperation across disciplines and stakeholders, compliance with existing or new legislation, and the need to establish oversight processes and practices, including tests, monitoring, audits and assessments by internal units, customers, users, independent third parties or governmental entities. Many standards imply that damage may be unavoidable. Therefore, risks should be assessed, reduced and mitigated, and the allocation of liability should be clearly delineated. Several sets of standards mention potential 'multiple' or 'dual- use', and take an explicit position against military application, or guard against the dynamics of an 'arms race'. [1035]

4.1.4.Responsibility and accountability

The terms 'responsible AI', responsibility and accountability are hardly ever defined, despite their frequent appearance in various sets of ethical standards. However, specific recommendations include acting with integrity, and making explicit the attribution of responsibility and legal liability at the outset in contracts or, alternatively, by providing means of remedy. In contrast, some standards stress the underlying reasons and processes that may lead to potential harm. While others emphasise the responsibility of whistleblowing in case of potential harm, and aim at promoting diversity or introducing ethics in the study of science, technology, engineering and mathematics.[1036] Those who are named as being responsible and accountable for AI's actions and decisions include AI developers, designers, and more non-specifically, institutions or the industry at large. There is a divergence of opinion regarding whether AI should be held accountable similar to humans, or whether humans should invariably be the agents who are ultimately responsible for technological work.[1037]

4.1.5.Privacy

While mostly undefined, privacy is regarded as both a value to uphold, and a legal right to be protected. It is frequently discussed in the context of data protection and data security. Some sets of standards relate privacy to freedom or trust. There are three categories of modes of achievement. Those are (a) technical solutions, such as differential privacy; privacy by design[1038];

[1035] n 1025 above.

[1036] <https://www.humanetech.com/> accessed 21 September 2022.

[1037] n 1025 above.

[1038] For example, Google's Federated Learning of Cohorts (FLoC) allow Google to run a microtargeting system for advertising so that browsers don't need to know each person on an individual basis or see their personal data.

data minimisation and access control; (b) requests for more research and awareness; and (c) regulatory approaches, with standards referring to legal compliance more broadly, or suggesting certificates or the creation or adaptation of laws and regulations to accommodate the specificities of AI.

4.1.6. Beneficence

While in ethical terms beneficence means 'the promotion of good', it is rarely defined in most sets of ethical standards. However, some sources refer to the augmentation of human senses, the promotion of human well-being, peace and happiness, the creation of socio-economic opportunities, economic prosperity,[1039] and financial market stability.[1040] There are inconsistencies within the standards regarding who will benefit from AI. Some private sector standards highlight the benefit of AI for customers. Other standards require AI to be shared and to benefit 'humanity', 'society', 'all sentient creatures', 'the planet' and 'the environment'. The promotion of good includes strategies such as aligning AI with human values; advancing 'scientific understanding of the world'; reducing power concentration or, conversely, using power for the benefit of human rights, minimising conflicts of interests, proving beneficence through customer demand and feedback loops, and developing new metrics and measurements for human well-being.[1041]

4.1.7. Freedom and autonomy

Freedom of expression is usually expressed as 'informational self-determination' and 'privacy-protecting user controls', and the 'promotion of freedom, empowerment or autonomy'.[1042] Some sources refer to autonomy as a positive freedom, specifically the freedom to flourish, to self-determination through the democratic process, the right to establish and develop relationships with other human beings, the freedom to withdraw consent, or the freedom to use a preferred platform or technology. Other sources emphasise negative freedom. For example, freedom from technological experimentation, manipulation or surveillance. Freedom and autonomy are promoted through transparency and predictable AI, by increasing people's knowledge about AI, giving notice and consent or, conversely, by actively refraining from collecting and spreading data in absence of informed consent.[1043]

[1039] n 1025 above.

[1040] n 1013 above.

[1041] n 1025 above.

[1042] n 1025 above.

[1043] n 1025 above.

4.1.8. Trust

The reference to 'trust' includes calls for *trustworthy* AI research and technology, trustworthy AI developers and organisations, and trustworthy design principles. Moreover, the importance of customers' trust is emphasised. A culture of trust among scientists and engineers is considered indispensable for AI to fulfil its world changing potential.[1044] The Independent High-Level Expert Group on AI (HLEG-AI), established by the European Commission, defines 'trustworthy AI' as being lawful, ethical and robust.[1045] Strategies for developing building or maintaining trust include education, reliability, accountability, processes to monitor and evaluate the integrity of AI systems continually, and tools and techniques ensuring compliance with norms and standards.[1046]

4.1.9. Sustainability

Sources which include sustainability requires the development and deployment of AI for protecting the environment, improving the planet's ecosystem and biodiversity, contributing to fairer and more equal societies and promoting peace.[1047] To accomplish this aim, the standards generally require AI to be designed, deployed and managed with care to increase its energy efficiency and minimise its ecological footprint.

4.1.10. Dignity

While the term dignity is rarely defined, it tends to refer to a prerogative of humans but not robots, and it is intertwined with human rights, or otherwise means avoiding harm, forced acceptance, automated classification and unknown human–AI interaction. Some standards require that AI should not diminish or destroy, but respect, preserve or even increase human dignity. Dignity is considered to be preserved if it is respected by AI developers at the outset and promoted through new legislation, governance measures, or through government-issued technical guidelines.

4.1.11. Solidarity

[1044] n 1025 above.

[1045] Independent High-Level Expert Group on Artificial Intelligence, Ethics Guidelines for Trustworthy AI <https://op.europa.eu/en/publication-detail/-/publication/d3988569-0434-11ea-8c1f-01aa75ed71a1> accessed 21 September 2022.

[1046] n 1045 above.

[1047] n 1045 above.

The reference to solidarity relates to implications of AI for the employment market. The standards appeal for a strong social safety net. They also stress the need for redistributing the benefits of AI so as not to threaten social cohesion, and respecting vulnerable persons and groups. Lastly, there is cautioning of data collection and practices focused on individuals which may undermine solidarity in favour of radical individualism.[1048]

4.2. Inadequacy of ethical principles

There can be scarcely any doubt that principles play a primary role in applied ethics. Indeed, agreeing on high-level principles is an important stage in ensuring that AI is developed and used for the benefit of society. Ethical principles help to organise and condense complex ethical issues which can be clearly understood and agreed upon by people from diverse backgrounds. Secondly, they enable a broad commitment to a shared set of values, which may be provided a more prominent role in institutional decision-making processes. Thirdly, ethical principles form a basis for more formal commitments in professional ethics, internationally agreed standards, and regulation. Fourthly, they help to address public concerns, by clarifying the ethical commitments of researchers and industry.[1049] However, ethical principles are not sufficient in themselves to ensure that society reaps the benefits and mitigates the risks of new technologies.[1050] To have any practical utility, principles will need to be action-guiding, and assist society to navigate the competing demands and considerations of real-life situations.[1051] Moreover, principles will need to be accompanied by an account of how they apply in given situations, and how to balance them when they conflict, or when there are tensions. For example, there may be conflicts between improving data quality or efficiency, and respecting privacy and autonomy of individuals.[1052] Secondly, there may be tension between using algorithms to make more accurate predictions and decisions and ensuring fair and equal treatment. In particular, when public or private bodies take decisions based upon predictions about future behaviour of individuals, such as estimates of recidivism risk. These algorithms may improve accuracy overall, but they discriminate against specific subgroups for whom representative data is not available. Thirdly, benefitting from increased personalisation in the digital market may inadvertently threaten social ideals of citizenship and solidarity.[1053] Fourthly, using automation to make people's lives more convenient

[1048] n 1045 above.

[1049] Jess Whittlestone and others (2019) 'The Role and Limits of Principles in AI Ethics: Towards a Focus on Tensions' <https://doi.org/10.1145/3306618.3314289> accessed 21 September 2022.

[1050] n 1049 above.

[1051] n 1049 above.

[1052] n 1049 above.

[1053] This was discussed earlier in the context of price discrimination algorithms and the threats to the welfare state.

may disrupt some of the practices that are an important part of our human identity. For example, with automation we may see the arts, languages and science becoming more accessible to those who were previously excluded. However, we may also observe widespread de-skilling, atrophy, ossification of practices, homogenisation and cultural diversity.[1054] Therefore, it has been recommended that an important strategy for AI ethics is to acknowledge, articulate and resolve these social conflicts, by applying the ethical principles in practical scenarios, and providing guidance and solutions on appropriate trade-offs and compromise.[1055] Similarly, Jobin, Ienca and Vayena explain that deliberative mechanisms may also be useful for resolving disagreements among stakeholders from different global regions. They suggest that efforts could be mediated and facilitated by intergovernmental organisations, complemented by bottom-up approaches involving all stakeholders.[1056] However, it is argued that there is a more fundamental challenge. Developing high level principles for AI applies the utilitarian or consequentialist method, as we are seeking to identify the overall harms and benefits of a course of action upon society. In light of the uncertainties surrounding how AI might evolve, this approach is likely to appeal to those in computer programming, given its relative flexibility and convenience. Nevertheless, utilitarianism doesn't address issues of *agency*, which represent some of the most profound ethical questions for AI. Utilitarianism is agent neutral.[1057] It isn't concerned with *who* brings about a particular result, provided the most benefit possible is produced. Indeed, some of the essential questions of AI ethics relate to human agency. For example, how will machine agency function alongside human agency? Will human agency and autonomy be enhanced, or threatened, by the use of AI? When should we use machine agency to augment or replace human agency? [1058] Therefore, we have no choice but to look beyond the content of any values, principles or standards. Furthermore, we will need to consider the assumptions of the normative ethical frameworks which underpin such values, principles or standards.[1059] Moreover, developing a set of key principles without deeper ethical analysis may be counterproductive. The next section of this chapter will consider a number of ethical issues for the purpose of helping us to choose the most appropriate ethical approach for the use of AI.

5. GENERAL ETHICAL ISSUES

[1054] n 1049 above.

[1055] n 1049 above.

[1056] n 1049 above.

[1057] Samuel Scheffler, *Rejection of Consequentialism* (OUP 1994).

[1058] Paula Boddington, 'Normative Modes: Codes and Standards' in Markus D Dubber, Frank Pasquale and Sunit Das (eds), *The Oxford Handbook of Ethics of AI* (OUP 2020).

[1059] n 1058 above.

5.1. Introduction

We have discussed that AI poses some new ethical challenges, such that AI might be used for undesirable ends and the use of AI might result in a loss of accountability. However, this is not to suggest that the substance of AI ethics is novel or unique. Some have argued that the ethics of AI, in particular relating to financial services, form an integral part of the body of ethics for traditional finance. For example, fairness in dealing with customers, equity in offering products or services to clients, and respect for persons' autonomy are all ethical requirements for agents to observe.[1060] Specifically, in respect of a loan application the questions concerning the decision's fairness, and the risks and consequences for the financial institution and the customer are identical, whether they are decided by a person or a regression algorithm.[1061] It is true that digital technologies, which exploit the tremendous increase in computing power accomplished over the past several decades, and the enormous volume of machine-readable data enable computers to learn patterns and draw valuable inferences. Nonetheless, ethical duties of the agent remain unaffected. Moreover, when considered within a firm or organisation, the ethics of AI and other traditional ethical inquiries form a coherent whole.[1062]

5.2. Applied ethics v normative machine ethics

Normative ethics aims to develop rules, principles and guidelines, grounded in rational argument, to help us distinguish good from bad, and right from wrong in our actions towards others in society.[1063] Normative ethics is comprised of a number of ethical theories and sub-theories.[1064] The purpose of these ethical theories is to assist us to choose the right course of action, and solve modern-day problems.[1065] Broadly speaking, normative ethical theories provide a useful framework for progressive ethical practice. They help to explain and justify a chosen act that is deemed ethically right. They also allow us to practise and refine our moral reasoning. As we become proficient at ethical reasoning, we are able to participate in corporate or public policy discussions in an intelligent way, with knowledge of how to present and evaluate ethical arguments.[1066]

[1060] n 1014 above.

[1061] n 1014 above.

[1062] n 1014 above.

[1063] n 1045 above.

[1064] John Hendry, *Ethics and Finance: An Introduction* (Cambridge University Press 2013).

[1065] George Möller, *Banking on Ethics: Today's perception is tomorrow's norm*. (Euromoney Books 2012).

[1066] Richard T. De George, *Business Ethics* (6th edn, Pearson Prentice Hall 2006).

AI ethics has been described as a sub-field of applied ethics, focusing on the ethical issues raised by the development, deployment and use of AI.[1067] Its main concern is to identify how AI can advance or raise concerns to the good life of individuals, whether in terms of quality of life, or human autonomy and freedom necessary for a democratic society.[1068] Applied ethics relates to the moral fitness of a decision or course of action and what we are obliged or permitted to do in a specific situation or a particular set of possibilities.[1069] In addition, it deals with real-life situations, where decisions have to be made under time-pressure, and often limited rationality.[1070] Russell and Norvig explain that while all scientists and engineers face ethical considerations of how they should behave at work, what projects should not be done, and how they should be handled, AI seems to pose some fresh problems beyond that of 'building bridges that don't collapse'.[1071] For example, people might lose their jobs to automation, AI might be used for undesirable ends, the use of AI might result in a loss of accountability, and the success of AI might mean the end of the human race.[1072] In this sense, as explained earlier, applied ethics is broadly utilitarian or consequentialist in approach, which is agent neutral. As we will discuss later in this chapter, human agency is one of the most profound questions that concerns AI ethics. The development of autonomous decision-making AI, which will increasingly affect humans, whether for good or bad, has given birth to a new field of normative inquiry, known as 'machine morality' or 'artificial normative ethics'.[1073] This is concerned with designing machines that behave ethically by building moral rules and principles, by using traditional ethical theories such as deontology, virtue ethics and utilitarianism. AI ethics is distinguishable as it has traditionally focused on ethical issues surrounding *human* use of AI.[1074]

5.3. Logical empiricism and AI

In Chapter 2 *Ethics* we discussed the logical positivists' claim that inquiry which is not factual and empirically verifiable is meaningless. In the context of computer science, the doctrine of logical positivism holds that all knowledge can be characterised by logical theories connected, ultimately, to *observation* sentences that correspond to *sensory* inputs. Therefore, logical

---

[1067] n 1045 above.

[1068] n 1045 above.

[1069] n 1045 above.

[1070] n 1045 above.

[1071] n 834 above.

[1072] n 834 above.

[1073] Wendell Wallach, 'The Conscience of the Machine' (2009) 72 Philosophy Now <https://philosophynow.org/issues/72/The_Conscience_Of_The_Machine> accessed 21 September 2022.

[1074] Susan Leigh Anderson and Michael Anderson, 'How Machines Can Advance Ethics' (2009) 72 Philosophy Now <https://philosophynow.org/issues/72/How_Machines_Can_Advance_Ethics> accessed 21 September 2022.

positivism combines rationalism and empiricism.[1075] This means that all meaningful statements may be verified or falsified either by experimentation, or by analysis of the meaning of the words.[1076] This may be illustrated by the eight definitions of AI[1077] which are grouped into the four broad approaches of acting humanly; thinking humanly; thinking rationally; and acting rationally.[1078] A human-centred approach is an empirical science, as it relies upon observations and hypotheses about human behaviour. A rationalist approach involves a combination of mathematics and engineering. The 'acting humanly' approach is best represented by the 'Turing Test',[1079] designed to provide a satisfactory operational definition of intelligence.[1080] In order to pass the test, a computer would need to possess certain qualities including natural language processing, knowledge representation, automated reason, and machine learning.[1081] The programming of a computer therefore involves empirical analysis, which is codified and programmed into the computer. The 'thinking humanly', or cognitive modelling approach, requires some way of determining how humans think. There are three ways of doing this. The first is through introspection and self-awareness, the second is through psychological experiments and observing a human in action, and the third is through brain imaging, and observing the brain in action.[1082] Again, this is an empirical science, which is based upon the experimental investigation of the human mind.[1083] Computer models and experimental techniques are combined to construct precise and testable theories of the human mind, which are based upon human observation.[1084] The 'thinking rationally' or 'laws of thought' approach stems from Aristotle's attempts to codify 'right thinking', or the 'irrefutable reasoning process'.[1085] In particular, his syllogisms[1086] gave patterns for argument structures that always provided correct conclusions when given correct premises. For example, 'all men are mortal, Socrates is a man,

---

[1075] n 834 above.

[1076] n 834 above.

[1077] n 834 above.

[1078] n 834 above.

[1079] The 'Turing Test' is used generally to refer to behavioural tests for the presence of mind, or thought, or intelligence in putatively minded entities. Graham Oppy and David Dowe, 'The Turing Test', The Stanford Encyclopedia of Philosophy (2020), Edward N. Zalta (ed) <https://plato.stanford.edu/archives/win2020/entries/turing-test/> accessed 21 September 2022.

[1080] n 834 above.

[1081] n 834 above.

[1082] n 834 above.

[1083] n 834 above.

[1084] n 834 above.

[1085] n 834 above.

[1086] These syllogisms involve four categorical propositions: universal affirmative, i.e. all humans are mortal; universal negative, i.e. no humans are perfect; particular affirmative, i.e. some humans are healthy; and particular negative, i.e. some humans are not healthy.

therefore Socrates is mortal'.[1087] These laws of thought led to the modern field of logic. The 'acting rationally', or the 'rational agent' approach provides that a rational agent acts in order to achieve the best overall outcome or, where there is uncertainty, the best expected outcome.[1088] The rational computer agent is expected to operate autonomously, understand their environment, persist over a long period of time, adapt to change, and create and pursue goals.[1089] This is distinguishable from the 'laws of thought' approach as the emphasis on correct inferences forms only one part of the 'rational agent' approach. Moreover, there are ways of acting rationally that do not involve inferences or lengthy deliberation, such as avoiding a car collision or hitting a pedestrian on the road, which involves a reflex action.[1090] What is noticeably absent from each of these four approaches is the normative inquiry, which is the consideration of what humans, and, therefore, computers *ought* to do given a particular set of facts.

5.4. The purpose of AI

Since 400 B.C, philosophers have made AI plausible by considering the human mind like a machine, which operates on knowledge encoded in an internal language, and can be used to choose what actions to take.[1091] In the Nicomachean Ethics, Aristotle elaborates on this topic further, suggesting an algorithm for deliberative thinking.[1092] However, Aristotle explains that we deliberate not about *ends* but about means.[1093] For example, he says a doctor does not deliberate whether he shall heal, nor an orator whether he shall convince, nor a statesman whether he shall produce law and order, nor does anyone else deliberate about his end.[1094] It is only after having set our *end* or *purpose*, that we subsequently consider how and by what means our end is to be attained.[1095] However, it is proposed that the four approaches to AI fail to consider the *ends* or *purpose*.[1096] At this point, it is worth distinguishing between 'instrumental' and 'final' goals. For example, in a game of chess, the algorithm AlphaZero is programmed to think that having the queen on the chess board is of *instrumental* value because it serves the goal of winning the chess game. AlphaZero values chess wins for their own sake, not for achieving any greater

[1087] n 834 above.

[1088] n 834 above.

[1089] n 834 above.

[1090] n 834 above.

[1091] n 834 above.

[1092] n 834 above.

[1093] n 834 above.

[1094] n 834 above.

[1095] Aristotle, *The Nicomachean Ethics*, 3.3, 1112b10.

[1096] Steve Petersen, 'Machines Learning Values' in S Matthew Liao (ed), *Ethics of Artificial Intelligence* (OUP 2020).

purpose. Therefore, winning a game of chess is its *final goal*. This is a simple example.[1097] However, algorithms within financial systems are more complex. We know that automated programs that trade stocks, bonds, and currencies on international financial markets have caused severe financial crises by triggering large-scale movements of capital out of specific countries'.[1098] In light of the far-reaching harmful social consequences of financial crises, we might seek to consider both the instrumental goals and the final goals of such algorithms.[1099] For example, while the *instrumental* goal of an automated program might be to trade in financial instruments, this serves the *final* goal of maximising profits for the firm. Alternatively, the algorithm may be programmed to think the *final* goal is to execute orders on terms most favourable to the client, i.e. the best execution obligation.[1100] However, if we wanted to programme an algorithm to achieve an even greater purpose, such as resilience of the financial system we may struggle to do so. As Nick Bostrom argues, philosophers do not even agree on how to paraphrase '*eudaimonia*' into other similarly abstract terms such as financial resilience, let alone into concrete computational primitives.[1101]

5.5. Machine morality

The four approaches to AI described earlier involve programming what '*is*' rather than what '*ought to be*'. Moreover, the deduction of what we '*ought to do*' solely from observation, experience or an empirical analysis, i.e. the naturalistic fallacy is not possible.[1102] There is no set of descriptive statements of fact that provides for an evaluative or value based judgement. In other words, we can have no certain knowledge of morality from our experience and observations. If we seek to engage AI as autonomous agents in our communities, those agents should be expected to follow our ethical standards or follow our purpose.[1103] Moreover, a

---

[1097] However, the reality is that chess is not a representation of life. Life is messy and unpredictable. Simon Chesterman, *We, The Robots? Regulating Artificial Intelligence and the Limits of the Law* (Cambridge University Press 2021).

[1098] Wendell Wallach and Colin Allen, *Moral Machines, Teaching Robots Right from Wrong* (OUP 2009).

[1099] Nick Bostrom explains that goal-content integrity for final goals is more fundamental than survival. Whereas, among humans the opposite may hold, because survival is usually part of our final goals.

[1100] This is set out in COBS 11.2A.2R *Obligation to execute orders on terms most favourable to the client* which requires a firm to take all sufficient steps to obtain, when executing orders, the best possible results for its clients, considering the execution factors, including price, costs, speed, and likelihood of execution and settlement.

[1101] n 887 and n 1096 above. Steve Petersen, 'Superintelligence as Superethical' in Patrick Lin, Ryan Jenkins & Keith Abney (eds), *Robot Ethics 2.0, from Autonomous Cars to Artificial Intelligence* (OUP 2017).

[1102] David Hume, *A Treatise of Human Nature* (1740) and G. E. Moore, *Principia Ethica* (1903).

[1103] <https://ethicsinaction.ieee.org/> and <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/ead1e.pdf?utm_medium=undefined&utm_source=undefined&utm_campaign=undefined&utm_content=undefined&utm_term=undefined> accessed 21 September 2022.

computer cannot know what '*ought to be*', unless it is programmed accordingly. Currently, complex machines are operating on a narrow or limited basis and, as a result, designers are likely to be able to predict all the situations a machine will encounter. Therefore, it will be designed to be operationally moral. However, as machine learning and strong AI advance, designers and engineers will no longer be able to predict how algorithms behave. As a result, machines will need a functional morality. In other words, they will need to process a variety of moral considerations in deciding upon a course of action. There are a number of preliminary ethical and legal issues that require earnest reflection by philosophers, legal academics and practitioners. For example, will machines eventually have artificial moral autonomy and agency? Will they require free-will, rationality, moral sentiments, a conscience and human-level understanding?[1104] Moreover, when might artificial agents be held responsible for their actions? Should they be granted legal personality, including property and civil rights? The next section will consider some of these preliminary ethical and legal issues. It suffices to say that these are all questions upon which computer scientists, philosophers, legal academics and practitioners tend to disagree upon. Therefore, for the foreseeable future, until these issues are resolved, machine morality will be predominantly concerned with ensuring that autonomous AI systems are safe, and that their actions reflect human values.[1105]

5.6. Artificial moral autonomy and agency

The concepts 'autonomy' and 'agency' are often used interchangeably. However, the differences between these concepts, and indeed their respective complexities become apparent when they are analysed in the context of AI. The concept of 'autonomy' derives from Ancient Greece[1106] which was used in a political context and referred to freedom to self-govern. Meanwhile, the idea of autonomy lies at the heart of Immanuel Kant's moral theory, the Categorical Imperative. According to Kant, it is our individual autonomy, i.e. the idea that we make and legislate our own laws, which justifies the authority that moral obligations have over us. Kant's concept of autonomy refers to principles which could be principles for everyone.[1107] In our contemporary age, autonomy is used in the individualistic sense of a personal ideal, which means that a person

[1104] n 1103 above.

[1105] n 1103 above.

[1106] Autonomous is translated from the Ancient Greek word 'αὐτονομία' or the romanised 'autonomía', which combines αὐτο- ('auto' or 'self') and νόμος ('nomos' or 'usage, custom, law, ordinance').

[1107] Onora O'Neill, 'Trust and Accountability in a Digital Age' (2020) 95(1) Philosophy 3 <https://doi.org/10.1017/S0031819119000457> accessed 21 September 2022.

acts in accordance with their own personal desires and values.[1108] However, it is not possible to apply these notions of autonomy to AI systems. The laws or rules by which an AI operates are conceived, designed and programmed by humans. Genuine moral autonomy, including free will, is the key to humans' special status as 'ends-in-themselves', and it is a characteristic that machines will never possess, because their behaviour is limited to the strict causality of their programs, and the logic gates of their transistors and microprocessors.[1109] Therefore, you may do what you will to your computer, as it is merely a means to an end.[1110]

Meanwhile, it would seem that AI systems do not have 'desires' or 'values' in the same way as humans. And yet, a notable feature of modern AI systems is their ability to operate autonomously, without the involvement of humans.[1111] However, when we refer to AI systems as autonomous, it is not that they make their own decisions. Rather that they make decisions without further human involvement once it has been programmed. Therefore, it is suggested that we should approach autonomy not in a conceptual sense, but as a set of questions regarding whether, how, and with what safeguards human decision-making authority is being transferred to a computer.[1112] Indeed, depending upon the AI system and the risks involved our answers will be varied. For example, algorithmic decision-making raises the question of the extent to which governments and other public authorities should outsource their responsibilities. Secondly, autonomous weapon systems have encouraged many to argue that some decisions should not be outsourced. Thirdly, it would appear that autonomous vehicles may be able to transport people and goods more efficiently and, in due course, more safely than human drivers.[1113]

[1108] n 1107 above. There are different conceptions of autonomy or freedom in philosophy. The German philosopher Georg Wilhelm Friedrich Hegel (1770–1831) identified our modern conception of individual freedom as the most primitive form of freedom. He considered the individualistic idea that a person is the sole crafter or author of their identity, aims and desires, personality and character as metaphysically bankrupt. Melvyn Bragg, BBC Radio 4, In Our Time, 'Hegel's Philosophy of History' <https://www.bbc.co.uk/programmes/m0017k8w> accessed 21 September 2022.

[1109] Thomas M. Powers, 'Machines and Moral Reasoning' (2009) 72 Philosophy Now <https://philosophynow.org/issues/72/Machines_and_Moral_Reasoning> accessed 21 September 2022.

[1110] The author disagrees with this statement. Kant's system of moral philosophy includes duties to inanimate objects, including computer hardware, which reflect the humanity and character of the actor.

[1111] Simon Chesterman, 'Artificial Intelligence and the Problem of Autonomy', (2020) 1 Notre Dame Journal on Emerging Technologies 210; Simon Chesterman, *We, The Robots? Regulating Artificial Intelligence and the Limits of the Law* (Cambridge University Press 2021); and Simon Chesterman, 'Artificial Intelligence And The Limits Of Legal Personality' (2020) 69(4) International & Comparative Law Quarterly 819.

[1112] n 1111 above.

[1113] Simon Chesterman argues that we have not reached this stage. He provides the example of the death of a homeless pedestrian in Tempe, Arizona in 2018 by an Uber self-driving car.

The term *agency* also has several meanings. In the context of AI, we are not referring to agency in the sense of the principal-agent relationship, but in a broader *jurisprudential* sense.[1114] Therefore, in a legal system which regulates the behaviour of its human and non-human legal subjects, a legal agent is a subject which can control and change its behaviour, and understand the legal consequences of its actions or omissions.[1115] Legal agency is currently the preserve of humans. However, not all humans are legal agents, such as young children; those who are not capable of exercising agency; and those with cognitive impairments, or in comas.[1116] Moreover, agency can exist to varying degrees. For example, children who reach the age of legal maturity are treated as having legal responsibility for their own actions.[1117] However, it is argued that advances in AI may undermine this monopoly enjoyed by humans,[1118] particularly as AI begins to makes decisions which are regarded as having moral character or outcome if undertaken by a human, which it develops independently.[1119] AI may meet both legal agency requirements, i.e. controlling and changing its behaviour, and understanding the legal consequences of its actions or omissions, without any human involvement.[1120] This has potentially significant ramifications for legal liability. A person cannot be said to have exercised full agency where the consequences of their free actions are not foreseeable. Indeed, agency requires that the result could have been reasonably predicted.[1121] Otherwise stated, the chain of causation which connects the AI and its human creator may no longer be maintained.[1122] In summary, the dynamic nature of AI will force us to reconsider philosophical concepts such as autonomy and agency. Moreover, it will present unprecedented challenges to our fundamental legal principles, such as legal agency, liability, reasonableness and causation, particularly as strong AI can develop independently, and make independent judgements without ongoing human intervention.

5.7. Artificial moral responsibility

[1114] n 979 above.

[1115] n 979 above.

[1116] n 979 above.

[1117] n 979 above.

[1118] n 979 above.

[1119] n 979 above.

[1120] n 979 above.

[1121] n 979 above.

[1122] The three elements of legal causation are (a) free, deliberate and informed action or omission of a legal agent; (b) the agent knew or ought to have known of the potential consequences of such action or omission; and (c) there has been no intervening act splitting (a) and (b). However, causation is not merely a question of objective fact, but involves considerations of economic, social and legal policy.

Most philosophers agree that current computer technologies should not be described as moral agents, if that would mean that they could not be held morally responsible.[1123] In particular, some have argued that algorithms are neither sentient nor moral. They have no awareness of pain, pleasure, remorse or empathy. They do not have values nor are they capable of making an exception to a rule. They cannot reflect on the type of life they want to lead, or the type of society they want to live in, and act accordingly. Consequently, ethics cannot apply to machines or software. While a robot may be an accountable agent if it is able to account for its decisions, in order to be morally responsible, it must relate itself to its actions in a more profound way, involving meaning, wanting to act in a certain way, and being epistemically aware of its behaviour. A corollary of this statement is that decisions made by a computer must always be subject to human control. Computers, machines, robots and programs only facilitate and complement human decisions. They cannot replace humans because they cannot comprehend the ethical significance of these decisions. Adopting this thread of argument, in the United States the official comment to the Restatement (Third) of Agency Law stipulates that a computer program is not capable of acting as a principal or an agent as defined by the common law. Moreover, computer programs are considered instrumentalities of the persons who use them. Therefore, if a program malfunctions even in ways unanticipated by its designer or user, the legal consequences for the person who uses it are no different than the consequences stemming from the malfunction of any other type of instrumentality.[1124]

An alternative view is that AI is unlike any other technologies created by mankind, which are fixed and static[1125] after human involvement has ended. AI is capable of independent agency, which is the ability to take important choices and decisions in a manner not planned or predicted by its designers. For example, when a person uses a search engine, they cause the AI functioning which, based on certain variables such as previous searches, age, gender or location, will consider their preferences in delivering search engine results. However, ultimately the decision as to what results are displayed remains that of the search engine.[1126] Similarly, it has been argued that the

[1123] Merel Noorman, 'Computing and Moral Responsibility' (2020) The Stanford Encyclopedia of Philosophy, Edward N. Zalta (ed) <https://plato.stanford.edu/archives/spr2020/entries/computing-responsibility/> accessed 21 September 2022.

[1124] Woodrow Barfield, 'Towards a law of artificial intelligence' in Woodrow Barfield and Ugo Pagallo (eds) *Research Handbook on the Law of Artificial Intelligence* (Edward Elgar 2018).

[1125] For example, a bicycle will not re-design itself to become faster, and the baseball bat will not independently decide to hit a ball at a particular trajectory or velocity. n 979 above.

[1126] n 979 above.

introduction of 'artificial moral agents' has become both necessary and inevitable.[1127] Proponents of this view acknowledge that machines are incapable of being conscious, and of the genuine understanding and emotions that define humans' most important relationships which shape humans' ethical norms.[1128] However, while we have no knowledge of the capabilities of machines, artificial morality does not depend upon having this knowledge.[1129] For example, non-conscious machines might still be considered moral producers because even if they don't have the autonomy that humans have, they do have a functional or operational autonomy, in that they have the capacity to make decisions which may be of considerable ethical importance.[1130] Moreover, proponents argue that philosophical objections should not halt efforts to have improved computational solutions to ethical decision making.[1131] Notwithstanding, they recognise that we face important questions such as whether a robot could ever really be a moral agent, and what is required for real moral agency. There are several answers to these questions, some of which focus upon conscious reasoning, free-will and the issue of moral responsibility.[1132] However, understandably, they are unable to provide concrete answers.[1133]

The concept of artificial moral agent fails to provide an account of artificial moral responsibility, nor does it provide practical mechanisms by which we can hold machines responsible.[1134] AI creates a responsibility gap, which cannot be bridged by traditional concepts of responsibility.

[1127] Daniel W Tigard, 'Artificial Moral Responsibility: How We Can and Cannot Hold Machines Responsible' (2021) 30 Cambridge Quarterly of Healthcare Ethics 435.

[1128] n 1127 above.

[1129] Stanislas Dehaene, Hakwan Lau, Sid Kouider, 'What is consciousness, and could machines have it?' 358(6362) Science 486 <https://www.science.org/doi/10.1126/science.aan8871> accessed 21 September 2022.

[1130] Steve Torrance suggests that we develop a special form of ethics for use by and towards machines. Steve Torrance, 'Will Robots Need Their Own Ethics?' (2009) 72 Philosophy Now <https://philosophynow.org/issues/72/Will_Robots_Need_Their_Own_Ethics> accessed 21 September 2022.

[1131] n 1130 above.

[1132] n 1130 above.

[1133] James Moor identifies four different types of ethical agents: (1) An ethical impact agent, which has ethical consequences to its actions; (2) An implicit ethical agent, which will employ some automatic ethical reactions to given situations, for example, a plane with warning devices to alert pilots when another plane is approaching on a collision path; (3) An explicit ethical agent, which will instead have general principles or rules of ethical conduct that are adjusted or interpreted to fit various kinds of situations; and (4) Full ethical agents, which make ethical judgements about a wide variety of situations, and in many cases can provide some justification for the judgements. Full ethical agents have those core metaphysical features that we tend to attribute to normal adult humans, with features such as consciousness, intentionality and free will. Whether or not robots can become full ethical agents need not be settled for robot or machine ethics to progress. James Moor, 'Four Kinds of Ethical Robots' (2009) 72 Philosophy Now <https://philosophynow.org/issues/72/Four_Kinds_of_Ethical_Robots> accessed 21 September 2022.

[1134] n 1127 above.

Meanwhile, whether right or wrong, it is argued that humans have a common psychological need to blame the sources of harm. Indeed, the prospect of losing our grip on responsibility, even for fewer harms, is worse than knowing exactly who is responsible in masses of tragedies.[1135] The increasing prevalence of AI systems is coupled with a growing urgency to address the question of who, if anyone, can be held responsible for the harms resulting from AI.[1136] However, the question should not be simply *who* can be responsible, but *how* we can coherently locate responsibility when the source of harm is an autonomous AI system.[1137] It is suggested that moral responsibility is a necessary condition for high-risk endeavours such as warfare, medical practice, and global banking & finance.[1138] We should therefore seek innovative ways to fill the lacuna of responsibility.

Traditional mechanisms for assigning responsibility include strict liability and non-delegable duties.[1139] Strict liability refers to the rule in Rylands v Fletcher,[1140] which provides that a defendant may be liable in the absence of fault or negligence. Meanwhile, non-delegable duties, which also find their origin in the rule in Rylands v Fletcher, refer to the nuanced position where a party who has the primary responsibility with the client may be held, in certain circumstances, to have accepted a duty to ensure that all relevant arrangements will be carried out in a non-negligent way, irrespective of whether the contracting party carries out the arrangements itself or arranges for a third party to do so.[1141] It has been argued that given the increased complexity of AI systems, it may be less appropriate to assign responsibility to a single party, whether it is the user, the manufacturer or the designer. Other academics have proposed that we consider a rich pluralistic approach to responsibility, which is being debated in contemporary literature.[1142] By adopting this approach, we may, as a procedural matter, locate a non-natural responsibility in artificial moral agents, but also require that the associates of an AI system, i.e. its programmers or users, take responsibility, even where these individuals could not have controlled or foreseen the machine's behaviour. [1143] While, on occasion, our allocation of responsibility may seem

[1135] n 1127 above.

[1136] n 1127 above.

[1137] n 1127 above.

[1138] The AEISMD, 'AI4People 7 AI Global Frameworks' Report <https://ai4people.eu/wp-content/pdf/AI4People7AIGlobalFrameworks.pdf> accessed 21 September 2022.

[1139] n 1111 above.

[1140] (1868) L.R. 3 H.L. 330.

[1141] Maria Watson, 'Standard of care to be applied in screening cases – "absolute confidence" test - non-delegable duty' (2020) 26(1) Medico-Legal Journal of Ireland 33.

[1142] n 1141 above.

[1143] n 1141 above. For example, in 2016, Microsoft was blamed for the racist remarks generated by 'Tay', its autonomous AI bot.

inappropriate, this is because we naturally maintain a direct conceptual link between agency and responsibility, which, in light of developments in AI, may not be necessary.[1144]

An alternative solution may be to provide a 'collective responsibility' mechanism which assigns 'distributed moral responsibility' in distributed environments, such as a network of agents, some of which are human and some of which are artificial, which may cause distributed moral actions.[1145] Distributed moral actions are morally loaded actions, i.e. good or bad, which are caused by local interactions that are morally neutral.[1146] This may be described colloquially as the 'perfect storm'. This strategy allocates responsibility for a whole causally relevant network to each agent, irrespective of the degrees of intentionality, informedness and risk aversion of such agents, i.e. faultless responsibility.[1147] This would involve a shift in perspective from an agent-oriented ethics, which is concerned about the individual, to a patient-oriented ethics, which is concerned about the affected system's well-being and ultimate prosperity.[1148] Indeed, it had been argued that seeking to find an existing legal person responsible for all AI actions might be at the expense of the integrity of the legal system as a whole.[1149]

5.8. Artificial legal personality

Another potential solution to the problem of assigning responsibility for AI is the creation of some form of AI legal personality.[1150] For example, it has been argued that the simplest objections to granting AI legal personality are based on a mistaken conflation of the idea of personality with humanity.[1151] Legal personality is a fiction. It is merely a bundle of rights and obligations created by humans through legal systems. To grant legal personality to AI is not to afford it the same moral rights which humans enjoy. Instead, it is the bundle of legal rights which would be granted, such as the ability to enter into contracts, to incur debt or to own property. Therefore, where the chain of causation between a legal person and an outcome has been broken, introducing a new

[1144] n 1141 above.
[1145] Luciano Floridi, 'Distributed morality in an information society' (2013) 19(3) Science and Engineering Ethics 727 <http://dx.doi.org/10.1007/s11948-012-9413-4> accessed 21 September 2022. Luciano Floridi, 'Faultless responsibility: on the nature and allocation of moral responsibility for distributed moral actions' (2016) 374 Philosophical Transactions of the Royal Society A <http://dx.doi.org/10.1098/rsta.2016.0112> accessed 21 September 2022.
[1146] n 1145 above.
[1147] n 1145 above.
[1148] n 1145 above.
[1149] n 979 above.
[1150] n 945 above.
[1151] n 979 above.

AI legal person provides an entity which can be held liable or responsible. As a result, there is minimal disruption to fundamental common law concepts of causation and agency, and the coherence of the legal system as a whole.[1152] There are further arguments in favour of granting AI legal personality which emanate from ideas of compassion. For example, it has been suggested that human empathy is another reason for creating robot rights. Indeed, Kant's system of moral philosophy includes duties to inanimate objects as those are reflective of our duties towards mankind.[1153]

However, other academics are much less optimistic about the idea of granting AI legal personality. As AI systems become more advanced and play a greater role in society, there are at least three reasons for granting AI legal personality. Firstly, to ensure that there is someone to blame when things go wrong. Secondly, to ensure that there is someone to reward when things go well. Thirdly, to shape or constrain behaviour, for example the threats associated with super-intelligence.[1154] The further question to consider is whether legal personality is granted for instrumental or inherent reasons.[1155] In terms of instrumental reasons, we may make comparisons with the most common artificial legal person, i.e. the corporation. The basis for this argument is that as AI systems become indistinguishable from humans, they should be granted a status comparable to natural persons. However, it has been maintained that most arguments in favour of AI legal personality suffer from being both too simple and too complex.[1156] They are too simple because AI systems exist on a spectrum with blurred edges.[1157] There is no meaningful category that could be identified for such recognition, and if instrumental reasons required recognition in specific cases, this could be achieved using existing legal forms.[1158] Secondly, the arguments are too complex because many are based on unstated assumptions about the future development of AI systems, for which personality would not only be useful but deserved.[1159] As discussed above, strong AI or AGI does not currently exist. It has been recommended that for the foreseeable future the preferred solution is to rely on existing categories, with responsibility for wrongdoing assigned to users, owners, or manufacturers rather than the AI systems themselves.[1160]

[1152] n 979 above.

[1153] n 979 above.

[1154] n 945 above.

[1155] n 945 above.

[1156] n 945 above.

[1157] n 945 above.

[1158] n 945 above.

[1159] n 945 above.

[1160] n 945 above.

5.9. Rights to an explanation

As AI becomes more autonomous, humans will find it increasingly difficult to monitor systems controlled by AI. Modern machine learning systems, unlike their predecessor rule-based expert systems, are inherently difficult to inspect.[1161] Indeed, a neural network's internal ratiocinations are obscure.[1162] Moreover, when sophistication of the rules by which decision-making is governed make it impossible to penetrate and comprehend on a human level, the system is said to be 'opaque', 'inscrutable' or 'black box'.[1163] On this basis, it has been argued that algorithms must reveal their basis for decision-making.[1164] This is also known as 'explainability'. The European Commission's HLEG-AI states that explainability refers to 'the ability to explain both the technical processes of an AI system and the related human decisions'.[1165] Meanwhile, technical explainability requires that the decisions made by an AI system can be understood and traced by humans. However, this will be balanced against the requirement to enhance accuracy of an AI system. The HLEG-AI recommend that where an AI system has a significant impact on people's lives, it should be possible to demand an explanation of the AI system's decision-making process. This should also be provided on a timely basis and adapted to the sophistication of the stakeholder concerned, i.e. a layperson, regulator or researcher. In addition, explanations of the degree to which an AI system influences and shapes the organisational decision-making process, design choices of the system, and the reasons for deploying it should be made available. This is to ensure business model transparency.[1166]

The Atomium European Institute explains that following the surge of deep learning methods, knowledge is captured in many layers of neurons, and their individual behaviour is defined by an array of numbers described as the parameters of the neuron.[1167] State of the art models often have millions and billions of parameters in total. Therefore, it is almost impossible to ask questions such as 'what does the number -0.29 mean in neuron 47 in layer 6 of the model?' Moreover, it is difficult to understand the context of individual parameters. While machine learning effectively captures intuition and knowledge within a domain, it is difficult to extract this knowledge in a

[1161] n 1138 above.

[1162] n 1161 above.

[1163] n 1161 above.

[1164] Andrew D. Selbst and Solon Barocas, The Intuitive Appeal of Explainable Machines (2018) 87 Fordham Law Review 1085 <https://ir.lawnet.fordham.edu/flr/vol87/iss3/11> accessed 21 September 2022.

[1165] n 1045 above.

[1166] n 1045 above.

[1167] n 1138 above.

humanly intelligible form. They are effectively black-box models.[1168] It is suggested that explainability in AI will become increasingly crucial as it enters more aspects of our daily lives. Indeed, explainability provides transparency, promotes fairness and supports auditability. Therefore, it has been recommended that certain capabilities or features should be embedded in the AI system to allow it to be self-explanatory.[1169] On this basis, the AI system will be able to communicate to the appropriate regulator, through specific mechanisms, the rationale for a certain decision, which will be humanly traceable. Secondly, regulators and engineers should be trained in explainability, and ensure that appropriate methods are applied before bringing a system into production. Thirdly, institutions should ensure explainability of their AI machine learning systems from the design stage.[1170] The next section of this chapter will discuss the ethical frameworks we may adopt for the purposes of implementing moral decision-making in AI systems.

6. THE ETHICAL FRAMEWORKS

Some have argued that AI systems will never be moral agents. They will never make truly moral decisions because they lack consciousness, free-will, moral sentiments, or a conscience. This argument however fails to discern two important thoughts. The first is performing the morally correct action, and being able to explain it by appealing to an acceptable ethical principle. The second is being held morally responsible for the action. It is true that intentionality and free-will are mostly necessary to hold a human being morally responsible for their actions. Indeed, it would be difficult to establish that a machine possesses such qualities. However, performing the morally correct action in an ethical dilemma and justifying it, requires neither intentionality nor free-will. The machine would simply need to act in a way that conforms with a perceived morally correct action, and be able to rationalise their action by referring to a guiding ethical principle.[1171] On this basis, we should still be able to implement some aspects of moral decision-making in AI systems to ensure that their choices and actions do not cause harm. Wallach and Allen suggest that an engineer responsible for building an ethical machine would need to understand the traditional ethical frameworks of deontology, virtue ethics and consequentialism. [1172] However,

---

[1168] n 1138 above. The Financial Stability Board (FSB) considers that the lack of interpretability or auditability of AI and machine learning methods could become a macro-level risk. See: FSB, 'Artificial intelligence and machine learning in financial services, Market developments and financial stability implications' (2017) <https://www.fsb.org/wp-content/uploads/P011117.pdf> accessed 22 September 2022.

[1169] n 1138 above.

[1170] n 1138 above.

[1171] Susan Leigh Anderson, 'Being Morally Responsible for an Action Versus Acting Responsibly or Irresponsibly' (1995) 20 Journal of Philosophical Research 453.

[1172] n 1098 above.

an engineer would also need to understand how the frameworks apply in the context of AI, robotics and the artificial moral agent. There are various approaches we might adopt, some of which correspond with the traditional ethical theories. For example, a top-down theory-driven approach. Some would argue that, on the basis that we are concerned with the behaviour of machines, we should adopt an action-based approach to ethical theory.[1173] A top-down approach represents the desire of communities to maintain general instructions for determining which types of actions are acceptable and not acceptable. It also reinforces cooperation, and the mutual acceptance that moral behaviour requires limiting one's freedom of action for the common good. In relation to artificial moral agents, this would involve programming ethical principles and rules, which once articulated and programmed, would make the act of being ethical simply a matter of observing the rules. Secondly, we might adopt a bottom-up developmental approach which emphasises the cultivation of implicit values of the agent. This approach pre-supposes that humans are not competent moral agents by birth, and that our morality is dynamic. Furthermore, our individual morality is determined by a combination of factors, including genetics, environment, education and learning over a period of time. Thirdly, we might merge a top-down and bottom-up approach, and develop a hybrid moral robot. In this approach, top-down and bottom-up aspects work together by adopting a connectionist network to develop a computer system with good character traits or virtues.[1174] However, once we have settled on an existing ethical theory, or at least an approach to ethical decision-making that appears to have merit, the next stage is to ensure that the theory or approach is made specific and sufficiently clear to be programmed into a machine. This will involve significant cooperation between ethicists and AI researchers.[1175] The top-down, bottom-up and hybrid top-down bottom-up approached are considered further below.

6.1. 'Top down' morality

The top-down approach to artificial morality involves having a set of principles or rules that can be coded into an algorithm. This is likely to follow one of the deontological moral traditions. However, it could also include utilitarian ethics. Other sources include the Golden Rule and legal and professional codes. However, of particular relevance to robots and AI, are Isaac Asimov's Laws of Robotics.[1176] The deontological notions of obligation, permission, and related concepts

[1173] n 1024 above.

[1174] n 1098 above.

[1175] n 1074 above.

[1176] Isaac Asimov, 'The Evitable Conflict' in Astounding Science Fiction (Street & Smith 1950). Isaac Asimov, *I, Robot* (HarperVoyager, 2013).

make it a suitable candidate as a language for the expression of machine ethics principles.[1177] Indeed, formal logics of action, obligation, and permissibility, which are used to incorporate a given set of ethical principles into the decision procedure of an AI system, is considered promising because one of the fundamental issues in machine ethics is trustworthiness, and having mechanised formal proofs are likely the most effective tool at our disposal for establishing trust.[1178]

6.1.1. Isaac Asimov's Laws of Robotics

Isaac Asimov's Laws of Robotics appeared in the fictional 'Handbook of Robotics, 56th Edition, 2058 A.D'. They provide as follows:

First Law: A robot may not injure a human being or, through inaction, allow a human being to come to harm (Do not harm humans).
Second Law: A robot must obey orders given it by human beings except where such orders would conflict with the First Law (Obey humans).
Third Law: A robot must protect its own existence as long as such protection does not conflict with the First or Second Law (if no conflict with First or Second Law).
Fourth Law: A robot may not harm humanity or by inaction, allow humanity to come to harm.

Isaac Asimov's Laws were written as science fiction. They were made deliberately vague in order to create problems and issues which would provide excellent material for his further novels and stories. Moreover, as with most principles, they are inherently indeterminate.[1179] They do not explain what a robot should do if it is given contradictory instructions by different people. For example, if we employed a robot personal assistant (PA), which we wanted to serve us, the robot PA might be obliged by the First Law to travel the world seeking to save befalling human beings from harm.[1180] Alternatively, the robot PA might interfere with our plans because they're likely to contain elements of risk that must be prevented on the basis of the First Law.[1181] In addition, the Laws do not account for commands which are iniquitous, but fall short of requiring a robot

[1177] n 1024 above.

[1178] S Bringsjord, K Arkoudas and P Bello, 'Toward a General Logicist Methodology for Engineering Ethically Correct Robots' (2006) 21(4) IEEE Intelligent Systems 38 <https://ieeexplore.ieee.org/document/1667951> accessed 21 September 2022.

[1179] Onora O'Neill, 'Justice Without Ethics' in John Tasioulas, J (ed.) *Cambridge Companion to the Philosophy of Law* (Cambridge University Press 2020).

[1180] n 1133 above.

[1181] n 1133 above.

to kill or steal.[1182] Nonetheless, even if they are considered reasonable, the real problem is how we should implement the Laws. For example, in the Isaac Asimov narrative a robot is sent to collect some selenium. The robot is subsequently discovered circling around the source of the selenium. Every time it approaches the selenium it senses danger, and the Third Law causes it to stay away. When the danger subsides, and the power of the Second Law starts to preside over matters, the robot veers back towards the selenium. Russell and Norvig explain that the set of points that define the balancing point between the two Laws defines a circle.[1183] This suggests that the Laws are not logical absolutes, but rather they are weighed against each other, with a higher weighting for the earlier Laws.[1184] It would appear that Isaac Asimov had in mind an architecture based on control theory, or a linear combination of factors. However, Russell and Norvig suggest that the most likely architecture should be based on a utilitarian model, which involves a 'probabilistic reasoning agent, which reasons over probability distributions of outcomes, and maximises utility as defined by the three Laws'.[1185] Isaac Asimov's special ethical duties for robots provides a significant contrast with the utilitarian approach.[1186] Utilitarian ethics, for the purposes of moral evaluation, is not concerned with why or by whom a particular action is carried out. Meanwhile, from the perspective of deontological ethics, duties derive from the specific nature of agents, and different agents may have different laws.

6.1.2.Kant's Categorical Imperative

Kant's Categorical Imperative represents the more abstract deontological theories, as compared to Isaac Asimov's more specific laws. As discussed in Chapter 2 *Ethics* the basis of Kant's Categorical Imperative is encapsulated in the 'Formulation of the Universal Law' which requires a person to '*act only on that maxim through which you can at the same time will that it should become a universal law*'. Many would argue, as previously discussed, that artificial agents and robots do not possess human rational thinking capacity or a free will[1187] to understand what constitutes a law that is morally worthy of being universalised. The Kantian system of ethics

[1182] n 979 above.

[1183] n 834 above.

[1184] n 834 above.

[1185] n 834 above.

[1186] n 1098 above.

[1187] Ozlem Ulgen, 'Kantian Ethics in the Age of Artificial Intelligence and Robotics', (2017) 43 Questions of International Law, Zoom-in 59 <http://www.qil-qdi.org/kantian-ethics-age-artificial-intelligence-robotics/> accessed 21 September 2022. Ozlem Ulgen, 'A 'Human-Centric and Lifecycle Approach' to Legal Responsibility for AI', (2021) 26(2) Communications Law Journal 96.

assumes a human-centric approach to formulating moral rules.[1188] The focus is on human self-determining capacity for the process of making and observing laws. This involves the exercise of human attributes and capabilities, such as practical reasoning, exercising judgement, self-reflection and deliberation, which lead to the formation of moral laws that are capable of universalisation.[1189] The Categorical Imperative may be a useful formal tool for the artificial moral agent to check the morality of a behaviour-guiding maxim.[1190] However, the ambiguity and vagueness of the First Formulation, i.e. what would count as a universal law, and the difficulty of specifying what counts as a harm or an injury to a human being, means that there are limitations of this top-down approach.[1191] Nevertheless, currently a limited sense of rational thinking capacity may be programmed in AI. Therefore, while AI cannot be deemed to have an autonomous will in the Kantian sense, it may possess a 'machine will', which has the capacity to set laws and adhere to them.[1192] Moreover, some have argued that Immanuel Kant's conception of moral reasoning is not opposed to the conception of mechanical intelligence.[1193] For example, Kantian philosophers generally consider that morality consists of making and following rules. In theory, an AI computer should be able to generate rules, and follow them so that its behaviour is principled.[1194] For example, let's assume that we want to build a computer program for the financial industry that refrained from stealing. The computer scientist construes stealing as 'the transfer of money from X's account into any other's account without the permission of X'. To achieve this restraint, the computer scientist programs the computer without any routine whatsoever to transfer money.[1195] This may be viewed as vacuous in moral terms. For the machine to be moral, we would want it to have the ability to do bad things, but choose not to do so. Moreover, this example also makes clear that the inaction of a moral machine would be only half the story, as we would want a machine to be able to do good things also. A Kant inspired machine could have a pre-programmed database of permissible maxims which are generated from the 'Formulation of the Universal Law'. However, we wouldn't be able to prove a maxim unless we had knowledge of the universal laws. The computer scientist would need to begin by programming one universal law, and then build the database of permissible maxims by an

[1188] n 1187 above.

[1189] n 1187 above.

[1190] n 1098 above.

[1191] Ewa Nowak, 'Can human and artificial agents share an autonomy, categorical imperative-based ethics and "moral" selfhood?' (2018) 6(2) Filozofia Publiczna i Edukacja Demokratyczna 169 <https://doi.org/10.14746/fped.2017.6.2.20> accessed 21 September 2022.

[1192] n 1187 above.

[1193] n 1109 above.

[1194] n 1109 above.

[1195] n 1109 above.

iterative process, generating them from the one universal law.[1196] As soon as a sufficiently large database is generated, we could instruct the computer to act on the following rule: 'Only do action ***a*** if it appears in the database of permissible maxims'. The computer scientist could also build into the software the ability to recognise new circumstances, and to compute new permissible maxims by applying the test of logical consistency with prior universals laws. Moreover, we might expect the computer to be able to compute the classes of forbidden and obligatory maxims through basic logic, as follows: 'if doing action ***a*** in circumstance ***c*** is not permissible, then the maxim to do ***a*** in ***c*** is forbidden; and if failing to do ***a*** in ***c*** is not permissible, then the maxim to do ***a*** in ***c*** is obligatory'.[1197]

However, the self-reflective[1198] and deliberative attributes and capabilities of humans are non-existent in AI and robots.[1199] Therefore, human agency is still required for designing and ultimately taking responsibility for their actions. This remains the case for fully autonomous rule-generating or human-machine rule-generating approaches.[1200] As a result, the law-making capacity of machine-to-machine interaction is limited to the exclusion of human ethical concerns.[1201] On the basis that there is human agency in the design, development, testing, and deployment of technology, the responsibility for implementing the Categorical Imperative remains with human beings. Humans should determine which laws are programmed into the AI technology to ensure ethical use and moral conduct. Moreover, humans should ensure that the laws are made publicly available, so they are capable of universalisation.[1202] The key questions for humans in terms of mechanical design are therefore 'what are the right rules?' and 'what rules do we implement to achieve our desired social goals?' There is a risk that this formulation relating

---

[1196] n 1109 above.

[1197] n 1109 above.

[1198] Thomas Powers suggests that prior to undertaking any action, the machine would have to check to see if an action was permissible, forbidden or obligatory. This is something he suggests that even the most careful human moral reasoners neglect.

[1199] David Reid, Associate Professor in Computer Science at Liverpool Hope University, recommends that we construct AI with high levels of functions, such as empathy. If we examine how ethics evolved in us we can encode the same mechanisms into the AI. If evolutionary ethics could be embedded in AI it would more adaptable than hard coding ethical laws. BBC Sounds, Four Thought, The AI Ethics Challenge <https://www.bbc.co.uk/sounds/play/b09yfnw8> accessed 21 September 2022.

[1200] n 1098 above.

[1201] n 1098 above.

[1202] n 1098 above.

to social goals departs from deontology, unless the desired social goals are brought into alignment with a universal form of justice.[1203]

As discussed in Chapter 2 *Ethics* the deontological theory fails to resolve moral dilemmas which arise from conflicting moral principles. In Kant's deontology, all moral judgements appear to be either/or judgements. A moral principle is either violated or not. Therefore, Kant's deontology provides no scope for exceptions. One way of avoiding this dilemma is by developing a pluralistic theory. For example, if more than one principle is relevant in a given scenario, we could evaluate which would yield the best results. David Ross claims that moral principles fall under a prima facie duty that must always be performed, unless they conflict with another more pressing obligation.[1204] The actual duty is the highest and most binding obligation. For example, always being on time for one's appointments is a prima facie duty. It is only in extraordinary situations that we are relieved of this duty. For example, if a person on her way to an appointment, comes across a person in need of urgent medical assistance, it remains that she must keep her appointment. However, on this occasion, she is obliged by a more pressing duty, which is to aid the afflicted person. Some have argued that the best approach to AI ethical decision-making is the Rossian prima facie duty, which essentially combines elements of utilitarian and deontological theories. On this basis, there isn't a single absolute duty to which we must adhere, but rather a number of duties we should seek to follow, but each may be overruled in certain situations. We have a prima facie duty, for instance, to keep our promises. However, if it causes great harm to do so, it may be overridden by another prima facie duty not to cause harm.[1205] There are a couple of advantages to this approach. Firstly, it can be tailored to any particular domain. There may be different sets of prima facie duties for biomedical ethics, financial ethics and legal ethics. Secondly, duties may be inserted or deleted if it becomes clear that they are required or not.[1206] Nevertheless a major drawback to this approach is that it needs to be supplemented with a principle for making decisions in cases when prima facie duties give conflicting advice.[1207]

Anderson and Anderson provide a test case which uses a prima facie duty theory appropriate for dilemmas in the field of biomedicine.[1208] For example, a doctor has recommended a particular treatment for their competent adult patient, who has rejected that treatment. This case study

[1203] Emanuelle Burton and others, 'Ethical Considerations in Artificial Intelligence Courses' (2017) 38(2) AI Magazine 22 <https://doi.org/10.1609/aimag.v38i2.2731> accessed 21 September 2022.

[1204] David Ross, *The Right and the Good* (OUP 1930).

[1205] n 1074 above.

[1206] n 1074 above.

[1207] n 1074 above.

[1208] n 1074 above. Beauchamp and Childress, *Principles of Biomedical Ethics* (OUP 1979).

concerns three duties of respect for the autonomy of the patient; duty not to cause harm to the patient (nonmaleficence); and duty to promote patient welfare (beneficence). The dilemma arises because, while the doctor shouldn't challenge the patient's autonomy unnecessarily, they might have concerns that the decision is not fully autonomous. This dilemma also involves the duty not to cause harm to the patient (nonmaleficence) and/or to promote patient welfare (beneficence), because the recommended treatment is designed to prevent harm to and/or benefit the patient. The doctor's options are binary: to either accept the patient's decision as final, or not. However, there are a finite number of specific types of such cases. Whether the prima facie duties are satisfied or violated and if so, to what degree is represented by a set of numerical values. For example, we would need to distinguish between a *strong* affirmation or violation of the duty of beneficence and a *weaker* one, which involves allowing the patient to receive some benefit and permitting the patient to lose some benefit. For example: '**-2**' represents a strong violation of a duty; '**-1**' represents a weaker violation; '**0**' is used when no duty is involved; '**+1**' represents some affirmation; and '**+2**' is used for a strong affirmation of the duty. In the first scenario, the doctor accepts the patient's decision. The patient explains that due to long-standing religious beliefs they refuse to take antibiotics which is likely to prevent complications from their illness, which are not likely to be severe. The patient is fully informed and understands the consequences of their refusal. The doctor's acceptance of the patient's decision involves inputting '**+2**' for respect for the autonomy of the patient, because it is a fully autonomous decision; '**-1**' for nonmaleficence, because it will lead to some harm for the patient which could have been prevented, and '**-1**' for beneficence, because the patient will not receive the benefit of taking the antibiotics. In the second scenario, the doctor questions the patient's decision. The doctor's challenge of the patient's decision involves inputting '**-1**' for respecting patient autonomy, '**+1**' for nonmaleficence and '**+1**' for beneficence, because taking the antibiotics will lead to the patient avoiding some harm, as well as providing a benefit. From these two scenarios, the following case profiles were generated: Accept: +2, -1, -1; Try Again: -1, +1, +1. Anderson and Anderson calculated from their range of values for the three possible duties, that there were 18 possible case profiles, where each profile represented a different ethical dilemma. Moreover, they found that giving the computer the correct answer to only 4 of those case profiles enabled it through machine learning to abstract a principle that provided the correct answer for the remaining 14 cases. The principle learned by the machine was that a doctor should challenge a patient's decision if it isn't fully autonomous, and if there is either any violation of nonmaleficence, or a severe violation of beneficence. While this principle was clearly implicit in the consensus judgements of the ethicists, it had never before been explicitly stated. This case

study demonstrates that defining ethics more precisely will permit machine learning techniques to discover novel and useful principles in ethics.[1209]

6.1.3. Utilitarianism

As discussed in Chapter 2 *Ethics*, utilitarianism proposes that an action is right only if it conforms to the principle of utility or the common good. An action conforms to the principle of utility only if its performance will be more productive of pleasure, happiness or the common good, or more preventative of pain or unhappiness than the alternatives. A characteristic feature of this theory is the idea that the rightness of an act depends entirely on the value of its consequences. Anderson and Anderson are broadly sanguine about the possibility of computing utilitarian ethical theory into a machine.[1210] However, they acknowledge that prior to performing the arithmetic operation, we need to have some idea of what is considered a 'good' and 'bad' consequence. In act utilitarianism, we need to consider the pleasure and displeasure that individuals affected by each possible action are likely to obtain. We also need to incorporate a sliding scale to explain the intensity and duration of the pleasure or displeasure for each individual. Act utilitarianism may be programmed into a machine relatively straightforwardly. [1211] Essentially, the algorithm would need to compute the action which derives the greatest net pleasure from all alternative actions. The input would be the number of people affected, and the intensity of the pleasure or displeasure for each person, which is reflected on a scale of 2 to –2; the duration of the pleasure or displeasure; and the probability that this pleasure or displeasure will occur for each possible action. For each individual, the algorithm calculates the product of the intensity, the duration, and the probability to obtain the net pleasure for that person. The algorithm would then add the individual net pleasures to obtain the total net pleasure, represented as 'Total net pleasure = $\sum$ (intensity $\times$ duration $\times$ probability) for each affected individual. This computation would then be performed for each alternative action. The action with the highest total net pleasure would be deemed to be the best action.[1212] It is arguable that machines have an advantage over humans in terms of applying act utilitarianism theory for several reasons.[1213] Primarily, rather than carrying out strict arithmetic calculations, humans tend to estimate that a certain action is likely to result in the greatest net good consequences. Therefore, there are risks of human error and inaccuracies.

[1209] n 1074 above.

[1210] n 1024 above.

[1211] n 1024 above.

[1212] Michael Anderson, Susan Leigh Anderson and Chris Armen (2005), 'Toward Machine Ethics: Implementing Two Action-Based Ethical Theories'. In AAAI Fall Symposium Technical Report on Machine Ethics. AAAI Press <https://www.aaai.org/Papers/Symposia/Fall/2005/FS-05-06/FS05-06-001.pdf> accessed 21 September 2022.

[1213] n 1024 above.

Secondly, humans tend towards bias and partiality. They may favour themselves, their friends and relatives over others who might be affected by their behaviour. Alternatively, a machine could be computed to ensure act impartiality and objectivity. Thirdly, humans may not consider all of the possible actions that they could perform in a particular situation. Conversely, a more thorough machine could be developed.[1214]

However, more pessimistically, artificial moral agents are likely to face significant burdens in seeking to calculate many, if not all, of the consequences for the purposes of classifying moral actions.[1215] The challenge for programme designers is knowing how to build mechanisms that are able to determine consequences and their net utilities.[1216] This has been described as the 'computational blackhole'.[1217] This problem is exacerbated because the consequences of an action are not bound by time and space.[1218] Allen, Varner and Zinser suggest that a hybrid model may help to avoid the computational blackhole problem. For example, it might involve initially utilitarian computations to a specified limit, at which point more abstract principles of duty or character are applied. Conversely one might implement a deontological system that can be overridden by utilitarian reasoning whenever the good consequences of an action clearly outweigh the bad.[1219] Critics of act utilitarianism have indicated that it can violate human rights, sacrificing a single individual for the greater good. It may also challenge our notion of justice and just deserts, because the rightness and wrongness of actions is determined entirely by the future consequences of actions, whereas what people deserve is generally considered a consequence of prior behaviour.[1220] On this basis, the deontological system will be most appropriate where fundamental rights, or the distribution of rights and obligations among different groups of people are involved. However, the utilitarian approach would also need to be

[1214] n 1024 above.

[1215] n 1098 above.

[1216] Colin Allen, Gary Varner & Jason Zinser, 'Prolegomena to any future artificial moral agent' (2000) 12:3 Journal of Experimental & Theoretical Artificial Intelligence 251<https://doi.org/10.1080/09528130050111428> accessed 21 September 2022.

[1217] n 1216 above.

[1218] n 1216 above.

[1219] Dehghani, Forbus, Tomai and Klenk have developed a model of moral decision-making, MoralDM, which incorporates utilitarian and deontological rules. MoralMD applies traditional rules of utilitarian decision making by choosing the action that provides the highest outcome utility. However, if Moral MD determines that there are sacred values involved, it operates in deontological mode and becomes less sensitive to the outcome utility of actions, preferring inaction to actions. Morteza Dehghani, Ken Forbus, Emmett Tomai and Matthew Klenk, 'An Integrated Reasoning Approach Moral Decision Making' in Michael Anderson M and Susan Leigh Anderson (eds), *Machine Ethics* (Cambridge University Press 2011).

[1220] n 1024 above.

considered where the wellbeing of people is likely to be impacted. In any event, it has been suggested that the development of AI systems with sufficient intelligence to assess the consequences of their actions upon others may be one of the most important challenges faced by the designers of artificially intelligent machines.

6.2. 'Bottom up' morality

6.2.1. Evolution-inspired approach

The invention of genetic algorithms in 1975 led to the radical idea that computers might become environments for evolving a new kind of artificial life.[1221] Early advocates proposed to simulate evolution within virtual environments. They hoped for the emergence of artificial agents capable of learning sophisticated behaviour, and elements of mind all comprised within a virtual environment.[1222] This field of study is now known as evolutionary robotics. In the bottom-up approach, the system design is not explicitly guided by any top-down ethical theory. Until now, evolutionary roboticists have concentrated on robots learning sensorimotor control to perform tasks such as walking. However, such techniques may also be used to develop systems with higher cognitive functions.[1223] Similarly, engineering approaches of experimenting with and refining intelligent systems are also regarded as following a bottom-up developmental approach.[1224] However, the combination of genetic algorithms, and the idea that the science of 'socio-biology' might provide a precise account of the evolutionary origin of ethics raised the prospect of creating artificial moral agents.[1225] Sociologists, and evolutionary psychologists, have sought to provide an account for the evolutionary conditions that lead to the emergence of moral systems. A key theoretical foundation of this effort has been game theory.[1226] For example, in an iterated Prisoner's Dilemma (PD) game experiment, it has been shown that, through evolution, organisms which have mutually iterated PD interactions evolve into a stable set of co-operative interactions. Moreover, it has been proven that it is functionally optimal if an organism co-operates with other organisms. The moral rules that emerge from this evolutionary process have no higher justification than survival values, because in the iterated game-theoretical scenarios, it is simply because it is in the best interests of rational agents that they co-operate and behave in a

[1221] Genetic algorithms have been used for many purposes, including, predicting the stock market and breaking codes.

[1222] n 1098 above.

[1223] n 1098 above.

[1224] n 1098 above.

[1225] n 1098 above.

[1226] Game theory is the mathematical theory of competition and cooperation among rational agents which was introduced by John von Neumannn and Oskar Morgenstern in 1944.

way that gives the appearance of morality.[1227] Meanwhile, the extent to which computational evolutionary models are reflective of real-world evolution of morality are highly doubtful. Real-world morality has evolved in scenarios far more complex than the simplistic artificial environments and evolutionary simulations of iterative PD games. One of the challenges involved in scaling these environments to more realistic environments, is the ability to construct an abstract, theoretical conception of morality. [1228]

6.2.2.Learning based approach

Some have suggested that artificial morality is possible within the framework of a 'moral dispositional functionalism'. [1229] This is premised on the idea that moral agents should be constructed upon learning patterns from data, and not upon rule-following procedures.[1230] This is an alternative bottom-up approach, and is also known as 'associative learning'. The model proposes that the artificial moral agent is able to read the behaviour of human actors, available as collected data, and to categorise their moral behaviour grounded in moral patterns.[1231] This involves a simulated childhood, a training period, and feedback loops which relate to the moral acceptability of actions. Through a combination of neural networks and evolutionary computation, which has been described as 'soft computing', the model reaches a certain level of autonomy and complexity, which illustrates well 'moral particularism'[1232] and a form of virtue ethics for machines, based upon active learning.[1233] As an agent-based model, this constitutes an alternative to the mainstream top-down action-centric models.[1234]

The main concern with associative learning is the feedback quality. The psychological literature on moral development appears to demonstrate that the best moral training involves embedding approval and disapproval in a context of reasons for those judgements. Moreover, motivation by punishment and reward features at the lowest, self-interested stage of moral development.[1235] The

[1227] n 1216 above.

[1228] n 1216 above.

[1229] Don Howard and Ioan Muntean 'Artificial Moral Cognition: Moral Functionalism and Autonomous Moral Agency' in Thomas M Powers (ed) *Philosophy and Computing: Philosophical Studies Series* (Springer 2017) <https://doi.org/10.1007/978-3-319-61043-6_7> accessed 21 September 2022.

[1230] n 1229 above.

[1231] n 1229 above.

[1232] The claims of moral particularism are that there are no general moral principles. Moral actions require a sensitivity to the circumstance of the situation, which emphasises the importance of human judgement.

[1233] n 1229 above.

[1234] n 1229 above.

[1235] n 1229 above.

second level involves social approval, which is divided into concern for the opinions of others and respect for social structures such as the law. The third level of moral development introduces abstract ideals. Therefore, the simplest associationist techniques which indicate either acceptability or unacceptability of an action are unlikely to produce fully satisfactory models of moral agency. If we are to develop an artificial moral agent, they would need to reflect a capacity for abstract moral reasoning. However, it would appear that AI is a long way from understanding the network architecture that is required to do so.[1236] In the meantime, the implementation of simpler schemes will be an important step towards the development of more sophisticated systems.[1237]

Bottom-up strategies may be useful in providing skills and standards which are integral to the overall design of an artificial moral agent. However, there are a number of challenges. Firstly, as discussed above, they are extremely difficult to evolve or develop and can be a very slow process.[1238] More fundamentally however, it remains unclear what would be the appropriate goal for an evolving artificial moral agent. This is why researchers have proposed a 'top-down' fitness criteria, such as Isaac Asimov's Laws, however they would function as broad guiding principles rather than hard and fast constraints. This hybrid approach combines the clear and simple top-down principles of Isaac Asimov's Laws with the dynamic flexibility of bottom-up development.[1239]

6.3. Hybrid 'top-down' and 'bottom up' morality

6.3.1. Virtue ethics

In virtue ethics systems, whether an act is right will depend upon the character and the motivation of the person, rather than the act itself, or its consequences. We are faced with two sets of challenges with this approach. The first involves the computational complexity of mapping abstract character traits onto real actions.[1240] The second relates to the problem of programming the computational use of rules for moral behaviour.[1241] If we want to specify, for example, that an artificial moral agent should have the character of honesty, this will require an algorithm to

[1236] n 1229 above.

[1237] n 1229 above.

[1238] n 1098 above.

[1239] n 1098 above.

[1240] n 1098 above.

[1241] n 1098 above.

determine whether any given action is honestly performed.[1242] However, it is difficult to formulate definitions of such characteristics. Moreover, it will also be difficult to establish whether particular actions conform to the virtues. Finally, as discussed in Chapter 2 *Ethics* it will be a formidable task to formulate a comprehensive list of virtues which would apply to an artificial moral agent in every scenario. If such a list of virtues were available, it would provide a top-down specification for a model of moral agency.[1243] Some of the programming challenges may be mitigated by connecting the virtues to specific functions, and tailoring them to the specific tasks of an artificial moral agent. However, it may not be appropriate to make artificial virtues too domain specific. Virtues that are stable across multiple contexts provide a solid basis for trust. It has been suggested that the Aristotelian approach to virtue-based ethics is similar to the modern connectionist approach to AI. For example, in The Nicomachean Ethics, Aristotle discusses how there is no explicit rule for pursuing what is 'good' or 'happiness'. We learn what is good through our intuition, induction and experience. In connectionism, artificial neural networks are able to learn to recognise patterns or build categories naturally, by detecting statistical regularities in complex inputs.[1244] These neural networks are trained by slowly changing the strengths of the connections between network units. Both the Aristotelian and connectionist methods focus on the immediate, the perceptual, the non-symbolic, and development through training rather than the teaching of abstract theory.[1245] As a result, it has been suggested that it is possible for artificial 'character' to emerge from a connectionist model of how the brain works.[1246] However, some have argued that while machine ethics is concerned with actions, it is appropriate that we adopt an action-based approach to ethical theory, and focus on the principles that machines ought to follow to behave ethically, as opposed to the qualities, or virtues that a person should possess.[1247] Principles will always be required as they perform an important role in the discernment of morally relevant differences in similar cases.[1248]

6.4. Non-rational morality

[1242] n 1098 above.

[1243] n 1216 above.

[1244] n 1098 above.

[1245] n 1098 above.

[1246] n 1098 above.

[1247] n 1024 above.

[1248] n 1024 above.

As discussed in Chapter 2 *Ethics* it may be unwise to allow emotions to guide our actions, particularly as they may be irrational, prejudicial or culturally conditioning.[1249] Therefore, to discover what is ethical, we should be guided by reason. However, this is not to suggest that there is no role for emotion in human morality. For example, David Hume's ethics is founded upon sentiment rather than reason, because human beings are able to have a natural sympathy for others.[1250] Similarly Adam Smith considered sympathy to be one of the most important principles in human nature, the greatest restraint upon the injustice of mankind, which guards and protects society.[1251] It is arguable, therefore, that our emotions do provide important motivators for human behaviour. Perfect knowledge of a moral theory does not guarantee action in conformity with that theory.[1252] For example, we might well consider a sociopathic agent who is perfectly capable of assessing whether certain actions are moral while being completely unmotivated to act morally. In addition to providing motivation, it is suggested that emotions provide moral knowledge. For example, the feelings of shame, regret or remorse which accompany the memory of a prior action might serve to guide that the action was morally wrong. Irrespective of the truth of this epistemological claim, human morality is undoubtedly guided by a complex blend of reason and emotion. In terms of guiding emotions, empathy for others plays a significant part in determining moral actions. Indeed, the absence of empathy often results in morally unacceptable behaviour.[1253] However, it would seem that emotion is also a double-edged sword. The very existence of passionate emotions may lead us to do things which, from an impartial perspective, we might consider to be immoral. However, if emotions such as empathy, regret and remorse are essential for intelligence or moral agency, computer scientists undoubtedly have a long way to go before building an artificial moral agent.[1254]

6.5. Conclusion

Top-down theories are regarded as an obvious starting place for discussing the prospects of building artificial moral agents. Isaac Asimov's Rules of Robotics, Kant's Categorical Imperative

[1249] Kara Tan Bhala, 'The philosophical foundations of financial ethics' in C Russo, R Lastra, W Blair (eds), *Research handbook on law and ethics in banking and finance* (Edward Elgar 2019).

[1250] William Bristow, "Enlightenment" (2017) The Stanford Encyclopedia of Philosophy, Edward N. Zalta (ed), <https://plato.stanford.edu/archives/fall2017/entries/enlightenment/> accessed 21 September 2022.

[1251] Adam Smith, *The Theory of Moral Sentiments* (R P Hanley ed, Penguin 2009)

[1252] n 1216 above.

[1253] n 1216 above.

[1254] Allen, Varner and Zinser doubt whether emotions are necessary for artificial moral agents to perform their functions. They provide the example of the chess computer, Deep Blue. The very lack of passion arguably contributes to Deep Blue being a better chess player than a human being. Meanwhile, robo-advisers may be less likely to succumb to human frailties such as excessive self-interest and greed.

and utilitarianism provide helpful frameworks to make all ethical rules subservient to a single over-riding principle. However, computer theorists are discovering that implementing such principles in a computer system is a complex exercise.[1255] For example, to perform a utilitarian calculation a machine would require a great deal of knowledge about the world, about human psychology, and about the impact of certain actions in the world.[1256] The computational load on the system would be immense. It would seem, therefore, that we are unable to reduce ethics to a simple algorithm.[1257] Wallach and Allen suggest that the prospects for implementing ethical principles as formal decision algorithms are slim. However, the appeal to top-down principles is useful for the purposes of informing and justifying actions.[1258] Therefore, designers of artificial moral agents should be required to capture this side of human morality. Meanwhile, bottom-up approaches also have their limitations. Wendell Wallach explains that artificial life experiments, genetic algorithms and robotic assembly techniques are far from producing the complex and sophisticated faculties needed for cognitive processes such as moral decision-making.[1259] The current learning algorithms are far from facilitating even the learning we see in very young children. Nevertheless, even though the technologies required for this purpose are not currently available, it is suggested that there is future potential of guiding an artificial agent through a process of moral development, which resembles the way children learn about what is right and wrong.[1260]

We discussed earlier how the approaches to AI involve programming what '*is*' rather than what '*ought to be*'. Moreover, the deduction of what we '*ought to do*' solely from observation, experience or an empirical analysis is impossible. A computer cannot know what '*ought to be*', unless it is programmed accordingly. Some moral philosophers interpret this to mean that we cannot determine what is right or good from moral psychology, i.e. from the way people actually make decisions. These philosophers disagree with game theorists and evolutionary psychologists who argue that evolution has built inherent biases into the structure of the mind, which determine what people consider to be right and good. Wendell Wallach suggests that while philosophers are right to separate moral reasoning from the study of the moral psychology, their excessive

---

[1255] Wendell Wallach, 'The Challenge of Moral Machines', (2009) 72 Philosophy Now <https://philosophynow.org/issues/72/The_Challenge_of_Moral_Machines> accessed 21 September 2022.

[1256] n 1255 above.

[1257] n 1255 above.

[1258] Anderson and Anderson explain that the distinction between 'explicit ethical agents' and 'implicit ethical agents' lies not only in who is making the ethical judgments, but also in the ability to justify ethical judgements that only an explicit representation of ethical principles allows.

[1259] n 1255 above.

[1260] n 1255 above.

emphasis on the importance of the former has contributed to a disjointed understanding of moral decision-making. He argues that the reasoning skills of machines will need to be supported by a number of other cognitive mechanisms, including emotional intelligence, sociability and a dynamic relationship with the environment, which are all necessary for machines to function competently in social contexts. In particular, a machine will need to read facial expressions and other non-verbal gestures to understand the desires and beliefs of other people with whom they are engaging. However, emotions, social skills and self-awareness are unlikely by themselves to be enough to build artificial moral agents. Therefore, top-down approaches, bottom-up approaches and non-rational morality will need to be combined. The challenge for philosophers and engineers is determining the programming or coding for the various faculties, and implementing the available techniques to build such faculties in a robot.[1261]

Nonetheless, to be considered morally responsible, the artificial agent must be connected to its actions in some more profound way, by wanting to act in a certain way, and being epistemically aware of its behaviour.[1262] However, the self-reflective and deliberative attributes and capabilities of humans do not exist in AI and robotics. Therefore, human agency is still required for designing and ultimately taking responsibility for their actions.[1263] One corollary of this is that decisions made by the artificial agent must always be subject to human control. Computers, machines, robots and programs should only facilitate and complement human decisions. They cannot replace humans because they cannot comprehend the ethical significance of these decisions.[1264] Moreover, it has been argued that 'building well-working AI machines, which serve for moral purposes, both as autonomous and semi-autonomous moral agents, does not mean building moral machines by default'.[1265] 'Moral machines' exhibit only a simulacrum of ethical deliberation, or a snapshot or replica of human morality, with all its imperfection.[1266] Therefore, the risk that 'artificial morality' may be tainted with the conscious and unconscious biases of the engineers who program the machines will need to be mitigated.

7. CONCLUSION

[1261] n 1255 above.

[1262] n 1014 above.

[1263] n 1098 above.

[1264] n 1014 above.

[1265] Sylvia Serafimova, 'Whose morality? Which rationality? Challenging artificial intelligence as a remedy for the lack of moral enhancement' (2020) 7 Humanities and Social Sciences Communications 119 <https://doi.org/10.1057/s41599-020-00614-8> accessed 21 September 2022.

[1266] n 1265 above.

This chapter recommends that we should seek to implement some aspects of moral decision-making in AI systems to ensure that their choices and actions do not cause harm. On this basis, designers and engineers who are responsible for building an ethical machine will need to understand the traditional ethical frameworks of deontology, consequentialism and virtue ethics. [1267] However, they will also need to understand how the frameworks apply in the context of AI, robotics and the artificial moral agent. We may adopt a top-down theory-driven approach, which would involve programming ethical principles and rules, which once articulated and programmed, would make the act of being ethical simply a matter of the artificial moral agent observing the rules. Secondly, we might adopt a bottom-up developmental approach which emphasises the cultivation of implicit values of the artificial moral agent. This approach pre-supposes that humans are not competent moral agents by birth, and that our morality is dynamic. Furthermore, our individual morality is determined by a combination of factors, including genetics, environment, education and learning over a period of time. Thirdly, we might merge a top-down and bottom-up approach, and develop a hybrid moral robot. In this approach, top-down and bottom-up aspects work together by adopting a connectionist network to develop a computer system with good character traits or virtues. However, once we have settled on an existing ethical theory, or at least an approach to ethical decision-making that appears to have merit, the next stage is to ensure that the theory or approach is made specific and sufficiently clear to be programmed into a machine. This will involve significant cooperation between ethicists and AI researchers.[1268]

Furthermore, in light of the above, this chapter recommends that our ethical standards relating to AI should be classified according to whom the ethical standards are being addressed. That is, the human *creators* of the AI, i.e. the designers, builders, programmers and users, *and* the AI itself which is *created*.[1269] In terms of rules for humans, these involve telling humans what *they* should or should not do. For example, the human creators must ensure *autonomy*, *honesty*, *explainability*, *technical robustness and safety*, *trustworthiness*, *fairness*, *justice and legitimacy, prudence, sustainability and stewardship* and *privacy* vis-à-vis the AI. These are in effect, a compilation of design ethics, which also build upon the ethical standards discussed in Chapter 3 *Standards in Banking and Finance*. In addition, they may stipulate that humans must make it intelligible how responsibility is allocated when things go wrong. For example, humans should not design robots as weapons except for national security reasons, and legal responsibility for a robot should be

[1267] n 1098 above.

[1268] n 1074 above.

[1269] n 979 above.

attributed.[1270] The rules have an indirect impact, as the potential benefit or harm they are seeking to either promote or prevent takes effect through the AI.[1271] Meanwhile, the rules for AI tell the AI what *it* should do. For example, an entity must identify itself as an AI system to another agent, and the AI system must be able to explain its thoughts and actions to humans. The standards for AI would include *explainability*, *justice and fairness, non-maleficence and privacy*. This division of standards for humans and for AI may be helpful for contemplating that while we may have rules and standards for ethical AI, there should always be human agency for designing, and ultimately taking responsibility for AI. The instrumental purpose of AI is represented by the rules for AI, while ensuring that we meet the ultimate purpose of AI will always be the responsibility of humans.

[1270] The EPSRC and AHRC Principles of Robotics, for designers, builders and users of robots <https://webarchive.nationalarchives.gov.uk/ukgwa/20210701125353/https://epsrc.ukri.org/research/ourportfolio/themes/engineering/activities/principlesofrobotics/> accessed 21 September 2022.

[1271] n 979 above.

CHAPTER FIVE

RECOMMENDATIONS

1. OVERVIEW OF THESIS

1.1. The value of ethics

This thesis has explained how ethics involves the attempt of answering the broad philosophical question, 'how should *we* live?'[1272] This eminent inquiry surpasses the 'you' and 'I', and gives ethics a universal and objective character.[1273] Indeed, ethics relates to the collective set of morals or values of a society. If our aim is to seek the highest good of all actions, i.e. 'eudaimonia',[1274] 'flourishing' or a 'well-lived life', our critical discourse should transcend the interests of individuals, or particular groups in society, and seek to promote the public interest. Therefore, ethics is inexorable and necessary for the whole of humanity.[1275] Secondly, while it may place constrains or limits on activity, ethics does *not* necessarily involve *only* a series of constraints and prohibitions.[1276] For example, ethics in banking and finance and AI relate not only to quotidian matters, i.e. financial transactions and technologies. They run much deeper. They concern profound questions relating to human flourishing, the natural environment, and the future of society. On this basis, we should seek a *positive* vision of a 'well-lived life' and a flourishing society. Thirdly, as we are all stakeholders, these questions should not be settled by governments or powerful corporations. Indeed, our current thoughts about the 'well-lived life' and 'flourishing' society, may need a lot more critical deliberation. [1277] This thesis attempts to contribute to this dialogue by reappraising the ethical foundations of financial regulation, and proposing an integrated ethical approach to financial regulation, couched in terms of social purpose, and anchored in the 'social licence for financial markets'.

1.2. Ethical foundations of financial regulation

The UK's response to the global financial crisis was successful in diagnosing and addressing many of the deficiencies in the UK financial system, by introducing measures relating to

[1272] Richard Norman, *The Moral Philosophers: An Introduction to Ethics* (2nd edn, OUP 1998).

[1273] Peter Singer, *Writings on an Ethical Life* (Fourth Estate 2001).

[1274] Aristotle, *The Nicomachean Ethics,* 1.4 (David Ross, tr, Lesley Brown, ed, OUP 2009).

[1275] Aloy Soppe, *New Financial Ethics: A Normative Approach* (Routledge 2017).

[1276] Mark Coeckelbergh, *AI Ethics* (The MIT Press 2020).

[1277] n 1276 above.

depositor protection, ring-fencing, capital adequacy and loss-absorbency measures, special resolution regimes, and increased individual responsibility. However, in light of the utilitarian objectives of financial regulation, it was concerned only with correcting market imperfections and failures, and it failed to address the ethical deficiencies in our approach to regulating the financial system. When financial regulation focuses predominantly upon correcting market imperfections and failures we shift away from deontological, justice theory and virtue-based ethical judgement. In addition, the prevalent utilitarianism underlying much of economic practice neglects concepts such as autonomy, dignity, and rights, reducing them to commodified utilitarian considerations. As a result, ethics as a broader discipline has been separated from economics and finance. This thesis has argued that we should rediscover the ethical purpose of finance, and re-establish ethics as one of the optimisation conditions of the market economy.

1.2.1. The purpose of the finance system

This thesis has argued that re-establishing ethics in finance requires a re-examination of the purpose of finance. This should not be *solely* to maximise the wealth of its shareholders, but to enrich society by supporting economic activity, creating value and employment, improve the well-being of people, and ultimately to serve the human good.[1278] The purpose of the financial system should be to stimulate inclusive sustainable growth, development, investment, and innovation.[1279] Meanwhile, financial regulation should seek to identify and promote the purposes of the financial services industry.[1280] Moreover, the performance of financial regulation should be assessed against these criteria, rather than its success in correcting market imperfections and failures, which derive from the pursuit of market efficiency.[1281] As a result, there should also be a fundamental re-examination of financial regulation, beginning with a careful consideration of the purpose of financial activity, its functions, risks, requirements for success, and measures of performance.[1282]

1.2.2. Integrated ethical approach to financial regulation

[1278] Christine Lagarde, Managing Director, International Monetary Fund, ‘The Role of Personal Accountability in Reforming Culture and Behavior in the Financial Services Industry’, at the New York Federal Reserve in 2015 <https://www.imf.org/en/News/Articles/2015/09/28/04/53/sp110515> accessed 21 September 2022.

[1279] Colin Mayer, *Prosperity: Better Business Makes the Greater Good* (OUP 2018).

[1280] n 1279 above.

[1281] n 1279 above.

[1282] n 1279 above.

This thesis has argued that an integrated ethical approach to financial regulation based upon Kaptein and Wempe's 'Corporate Integrity Model' will give succour to re-establishing ethics in finance in the UK. The integrated ethical approach promotes the simultaneous and balanced use of the three ethical theories – *deontology*, *virtue ethics* and *utilitarianism*. That is, it regulates the relationship between intentions, deeds and consequences. The integrated ethical framework is based upon three assumptions. Primarily, there is a strict correlation between duty and virtue, i.e. duty culminates in the pursuit of virtue, and the proper path to virtue is the fulfilment of our duties. Secondly, perfect moral duties and correlated moral rights of the individual have a greater weight than standards of justice, and standards of justice have greater weight than maximising total utility. In this respect, utilitarianism is placed in a hierarchy of ethical criteria, in which duty and virtue-based ethics, and standards of justice are considered in *priority* to standards of maximum utility. Therefore, rights and duties serve as constraints on policymaking, ensuring that those values are respected while social welfare is promoted within these constraints. There will likely be disagreements about which values should be given lexical priority and which can be traded off to advance others. In such circumstances, we should apply our judgement and practical reason to determine the most appropriate course of action. For example, the deontological theory will be most appropriate where the fundamental rights, or the distribution of rights and obligations among different groups of people are concerned. However, if the wellbeing of society is likely to be impacted, the utilitarian theory would also need to be considered. In any event, we should not lose sight of our ability to use our reason and think practically. Thirdly, the ultimate purpose of the integrated ethical approach is the cultivation of a flourishing and sustainable financial system and the well-being of our society.

1.2.3. The social licence for financial markets

The 'social licence for financial markets' reveals the fundamental relationship between finance and society. Financial markets are not an *end* in themselves, but powerful *means* for prosperity and security for everyone. The 'social licence for financial markets' focuses upon social purpose by making finance available to serve the needs of the real economy, supporting SMEs, and addressing wider concerns such as the environment and long-term sustainability. This thesis has argued that the 'social licence for financial markets' is congruent with Kant's Categorical Imperative, as social goals, the creation of value, a prosperous economy and employment are universal to all human beings. Secondly, it is coherent with the ultimate goal of *flourishing* in teleological virtue ethics. Finally, it is consistent with utilitarianism. As John Stuart Mill wrote, the happiness which forms the utilitarian standard of what is right in conduct, is not one's own happiness, but that of *all* persons concerned. Therefore, we may not prefer our happiness, or the happiness of our friends or family above the happiness of others. We must be concerned with the

happiness of everyone in society. The 'social licence for financial markets' promotes reconciliation between those pursuing a set of potentially conflicting interests. For example, in addition to the obligations of *treating customers fairly*, firms will be constrained by its duty to shareholders, in particular to maximise profits, and the principle to conduct business on *caveat emptor* terms. In such circumstances, the 'social licence for financial markets' embraces each of these things in a reciprocal balance, with an overriding desire for the wellbeing of others. Finally, the 'social licence for financial markets' provides an essential framework for establishing and interpreting ethical standards for banking and finance.

1.3. Ethical standards for banking and finance

This thesis has distilled from the current regulatory and legal standards in banking and finance a number of ethical principles – *integrity, loyalty, prudence, skill, care, diligence,* and *fairness*. It has argued that we should seek to improve the efficacy of these ethical standards by either refining them, or introducing additional ones. For example, the term '*integrity*' as a substantive virtue should be removed from our regulatory standards, and the simpler terms '*honesty*' and '*trustworthiness*' should be adopted. The quality of being honest is necessary for developing relationships of trust. Moreover, trust should be placed in the claims and commitments of other persons and institutions, when there is appropriate evidence of their '*trustworthiness*' in relevant matters. Meanwhile, we should seek to establish and apply '*fairness*' through *a priori* judgement, which is inherent in reason, and revealed through its operation, rather than *a posteriori* judgement, which is based on empirical knowledge. Secondly, we should seek to locate '*fairness*' within the context of pursuing a broader social cooperative purpose between business and society. This thesis has also argued that '*sustainability*' and '*stewardship*' should be included in our ethical standards. Moreover, the advantage of having a broad conception of '*sustainability*' is that it can provide a general framework within which those pursuing a set of potentially conflicting interests can meet and identify a shared or common purpose. Furthermore, this thesis has argued that we should include '*justice' and 'legitimacy'* as additional ethical standards. In particular, we should seek a *systemic*, *structural* and *prophylactic* concept of justice, which is anchored in human dignity. Meanwhile, we should aim to establish, or re-establish the legitimacy of financial markets and financial institutions for society. Therefore, both financial institutions and markets should engage more closely with affected communities and society. As a result, communities and society may deem financial institutions and markets '*trustworthy*'.[1283]

[1283] David Rouch, *The Social Licence for Financial Markets, Reaching for the End and Why it Counts* (Palgrave Macmillan 2019).

1.4. Ethical standards for general AI

In recent years there has been a proliferation in the number of principles, protocols, codes and guidelines for ethical AI. While agreeing on abstract high-level principles is important for ensuring that AI is developed and used for the benefit of society, ethical principles are not sufficient in themselves to ensure that society reaps the benefits and avoids the risks of new technologies. This thesis has suggested that principles will need to be accompanied by an account of how they apply in given situations, and how to balance them when they conflict, or when there are tensions. Nevertheless, there is a more fundamental challenge. Developing high level principles for AI applies the utilitarian method, as we are seeking to identify the overall harms and benefits of a course of action upon society. However, utilitarianism doesn't address issues of *agency*, which represent some of the most profound ethical questions for AI. It isn't concerned with *who* brings about a particular result, provided the most benefit possible is produced. This thesis has argued that AI ethical standards should be organised according to whom the ethical standards are being directed. That is, the human *creators* of the AI, i.e. the designers, builders, programmers, and the AI, which is *created*. Notwithstanding, while we may have rules and standards for ethical AI, given the inextricable relationship between AI and the human designer, builder, programmer and user, there should always be human agency for designing, and ultimately taking responsibility for AI.

1.5. Normative ethical framework for AI

In light of the rapid development of strong AI, and growing ethical concerns relating to super-intelligent AI systems, this thesis has argued that, in addition to establishing rules addressed specifically to AI, we should be exploring 'machine morality', or 'artificial normative ethics'. Machine morality, which is a separate genus of ethics, is not concerned with how *humans* use AI, but rather how AI arrives at its own moral decisions. While many consider that machines are incapable of consciousness, intentionality, free-will, or genuine emotions that define our relationships and shape our ethical norms, it does not follow that machines are unable to make moral decisions. Indeed, performing the morally correct action in an ethical dilemma and justifying it requires neither intentionality nor free-will. The machine needs simply act in a way that conforms with what is considered to be the morally correct action in a given situation, and rationalise its action by referring to an acceptable ethical principle. Consequently, this thesis has argued that we should seek to implement moral decision-making in AI systems to ensure that their choices and actions do not cause harm. This means designing machines that behave ethically by building moral rules and principles, using traditional ethical theories, and by combining top-down, bottom-up and non-rational morality. On this basis, designers and engineers will need to

understand the traditional ethical theories such as deontology, utilitarianism and virtue ethics. However, they will also need to understand how the frameworks apply in the context of AI, robotics and the artificial moral agent. For example, we may adopt a top-down theory-driven approach, which would involve programming ethical principles and rules, which once articulated and programmed, would make the act of being ethical simply a matter of the artificial moral agent observing the rules. Secondly, we might adopt a bottom-up developmental approach which emphasises the cultivation of implicit values of the artificial moral agent. This approach presupposes that humans are not competent moral agents by birth, and that our morality is dynamic. Furthermore, our individual morality is determined by a combination of factors, including genetics, environment, education and learning over a period of time. Thirdly, we might merge a top-down and bottom-up approach, and develop a hybrid moral robot. In this approach, top-down and bottom-up aspects work together by adopting a connectionist network to develop a computer system with good character traits or virtues. In addition, the reasoning skills of machines will need to be supported by a number of other cognitive mechanisms, including emotional intelligence, sociability and a dynamic relationship with the environment, which are all necessary for machines to function competently in social contexts. However, emotions, social skills and self-awareness are unlikely by themselves to be enough to build artificial moral agents. Therefore, top-down approaches, bottom-up approaches and non-rational morality will need to be integrated. However, once we have settled on an integrated approach to ethical decision-making, the next stage is to ensure that it is made specific and sufficiently clear to be programmed into a machine. This will involve significant cooperation between ethicists, lawyers, AI researchers and engineers.

Finally, this thesis has argued that while AI, machines and robots may make moral decisions, they cannot entirely replace humans. The self-reflective and deliberative attributes and capabilities of humans do not exist in AI and robotics. Consequently, they are unable to comprehend the ethical significance of their decisions. Therefore, human agency is still required for designing and ultimately taking responsibility for their actions. One corollary of this is that decisions made by the artificial agent must always be subject to human oversight. The general purpose of AI should be determined by humans, and the instrumental purposes of AI programmed into the AI technology. Moreover, while moral machines exhibit only a simulacrum of human ethical deliberation, there are risks that artificial morality will be tainted with the conscious and unconscious biases of the engineers who program the moral machines. These risks will therefore need to be managed and mitigated by reference to the ethical standards which are addressed to the human *creators* of the AI.

2. RECOMMENDATIONS

2.1. Introduction

If we are to seek to regulate the use of AI, while a commitment to ethical frameworks is necessary, it will be insufficient on its own, in a highly competitive market.[1284] Indeed, ethical frameworks cannot provide a substitute for law or other forms of formal regulation.[1285] The current challenge for lawyers and regulators is to progress the debate from ethical foundations and frameworks and the proliferation and convergence of ethical standards to the design of legal and regulatory frameworks informed by ethical principles.[1286] While some academics have proposed specific legislation for the regulation for AI,[1287] others argue that although AI will inevitably create new risks and unforeseeable consequences, it may still be too early to attempt a general system of AI regulation.[1288] Therefore we should work incrementally within the existing legal and regulatory frameworks which allocate responsibility and liability.[1289] Though it is important that the overall regime for AI regulation is coherent, it should not operate in isolation from existing regulatory regimes.[1290] Where an activity is already regulated under a specific regulatory regime, the use of AI in the carrying on of that activity, for example in providing financial services, will be captured within the perimeter of an existing regulatory regime.[1291] However, the regulators will need to develop additional ethical, regulatory and legal standards for the use of AI.[1292]

2.2. UK overarching statutory architecture

2.2.1. Revised statutory objectives

[1284] Julia Black and Andrew D Murray, 'Regulating AI and machine learning: setting the regulatory agenda' (2019)10 (3) European Journal of Law and Technology <http://eprints.lse.ac.uk/102953/4/722_3282_1_PB.pdf> accessed 21 September 2022.

[1285] n 1284 above.

[1286] n 1284 above.

[1287] Matthew U Scherer, 'Regulating Artificial Intelligence Systems: Risks, Challenges, Competencies, and Strategies', (2016) 29(2) Harvard Journal of Law & Technology.

[1288] Chris Reed, How should we regulate artificial intelligence? (2018) Philosophical Transactions of the Royal Society A 376 <http://dx.doi.org/10.1098/rsta.2017.0360> accessed 22 September 2022.

[1289] n 1288 above.

[1290] n 1284 above.

[1291] n 1284 above.

[1292] n 1284 above.

This chapter recommends the introduction of a new statutory objective in the FSMA 2000 for the FCA and the PRA to provide greater focus on the social purpose of finance, and the ultimate aim of ensuring a just distribution of benefits and burdens amongst consumers and financial institutions in society. The 'social purpose' objective will recognise financial self-interest and the importance of financial returns. However, it will also acknowledge mutuality of purpose between the strategies of financial institutions, and the social goals of the communities that they serve, the natural environment and sustainability.[1293] The financial regulators will need to ensure that firms commit to the responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable, and fairly distributed benefits and burdens, for customers, shareholders, employees, suppliers, the financial system, the economy, the environment and society. Indeed, it is argued that a commitment to ethical standards will promote global investment and sustainable economic growth.[1294] Therefore, the performance of financial regulation[1295] should be evaluated against these criteria, rather than its success in correcting market imperfections and failures, which derive from the pursuit of market efficiency.[1296]

It may be argued that the term "social purpose" is too ill-defined, which will create uncertainty and misapprehensions. Secondly, having an additional statutory objective will create ambiguity. It is recommended that "social purpose" is specified in FSMA 2000 which should assist the government and regulators to focus their efforts on desirable social outcomes. Meanwhile, the regulators should be expected to advance their social purpose objectives, or act in a way which is compatible with their social purpose objectives, as part of their general duties and functions. Therefore, the regulators would do this within a clear hierarchy which does not undermine their existing objectives. Furthermore, it may be argued that the regulators are already mandated to co-operate with the FPC to promote its objectives to support the UK's economic policy, including growth and employment. However, it is suggested that this not adequate. Furthermore, while there will likely be overlap with the consumer protection objective, it is suggested that consumer

[1293] See Appendix 2 *Proposed amendments to FSMA 2000* for suggested amendments to FSMA 2000.

[1294] In a recent Parliamentary debate, a number of Parliamentarians expressed the view that there should be a statutory objective for the FCA and the PRA to provide greater focus on the need for sustainable growth <https://hansard.parliament.uk/commons/2022-09-07/debates/031C9811-9E3E-4EE5-AADA-AB9984934DFD/FinancialServicesAndMarketsBill> accessed 22 September 2022.

[1295] and indeed the performance of the financial regulators. On this basis, we might consider, as a constituent part of the 'social licence for financial markets', a 'regulatory licence' between consumers of financial services and the financial regulators.

[1296] n 1279 above. Given the assessment of Fintech risks by the UK, and by international organisations appears broadly aligned, these recommendations, which are UK focused, are broadly compatible with how the international organisations assess Fintech risks.

protection is regarded as a constituent part of the social purpose objective. Finally, it is acknowledged that the regulators have finite financial and other resources. Therefore, the principle of proportionality should continue to apply. Meanwhile, HM Treasury and Parliament should continue to hold the regulators accountable.

2.2.2. New regulatory principles

In addition to the 'social purpose' statutory objective, the FSMA 2000 should be amended to introduce a new regulatory principle for the FCA and the PRA, requiring them, when discharging their general functions, to have regard to firms serving society,[1297] including medium to long-term growth of the real economy, supporting SMEs, and addressing environmental[1298] and sustainability considerations.

2.2.3. Further amendments to FSMA 2000

Part 9A *Rules and Guidance* FSMA 2000 should be amended to include a general requirement that the FCA and PRA's rules and guidance made pursuant to their general rule-making powers should seek to promote the following ethical principles: *honesty*, *trustworthiness*, *due skill, care and diligence*, *fairness, justice and legitimacy*, *prudence*, *sustainability* and *stewardship*.[1299] Secondly, Part 4A *Permission to carry on regulated activities* FSMA 2000, in particular section 55B *The threshold conditions* FSMA 2000 and Schedule 6 *Threshold Conditions* FSMA 2000 should include a requirement for firms to articulate their social purpose, incorporate this in their articles of association and demonstrate how their business models and conduct promote their social purpose.[1300] For example, in determining the suitability of their business model, i.e. their strategy for doing business under paragraph 2F Schedule 6 *Threshold Conditions* FSMA 2000, a regulated firm should have regard to the long-term consequences of decisions, the interests of consumers, employees, suppliers, the impact of the firm upon the community and the

[1297] For example, the Financial Services and Markets Bill 2022-2023 introduces measures that support financial inclusion by ensuring people across the UK can continue to access cash <https://publications.parliament.uk/pa/bills/cbill/58-03/0146/220146.pdf> and <https://publications.parliament.uk/pa/bills/cbill/58-03/0146/en/220146en.pdf> accessed 22 September 2022.

[1298] The Financial Services and Markets Bill 2022-2023 replaces section 3B(1)(c) FSMA 2000 with "(c) the need to contribute towards achieving compliance with section 1 of the Climate Change Act 2008 (UK net zero emissions target)".

[1299] This reinstatement of ethical standards in primary legislation follows the example of the Financial Services Act (FSA) 1986, Schedule 8 *Principles applicable to Designated Agency's Rules and Regulations*.

[1300] Similar amendments should also be made to the Companies Act 2006.

environment and the desirability of the firm adhering to ethical principles.[1301] This could be implemented by requiring board members of firms to periodically self-evaluate their ability to earn and maintain a social licence to operate, and consider any social opportunities and costs. It has been argued that financial institutions owe a range of legal and regulatory, contractual, and non-legal duties to their shareholders, their other stakeholders and, arguably, to society. [1302] The board members of firms should be able to demonstrate an awareness of the nature and intensity of those duties, and an ability to balance and reconcile them.[1303] In particular, board members could be required to self-evaluate periodically how they would most likely promote the success of the firm having regard to long-term consequences of decisions, the interests of consumers, employees, suppliers, the impact of the firm upon the community and the environment and the desirability of the firm adhering to ethical principles.[1304] A firm could establish a board level 'social purpose committee' to work with senior management to establish and revise a firm's social purpose objectives consistent with the FCA and PRA's statutory objectives, and regulatory principles, as discussed above.[1305] In addition, Part 4A *Permission to carry on regulated activities* FSMA 2000, in particular section 55B *The threshold conditions* FSMA 2000 and Schedule 6 *Threshold Conditions* FSMA 2000 could require firms to refrain from pursuing purposes and engaging in activities that could be detrimental to the maintenance of human, intellectual, natural and social as well as financial and material capital, and to invest in those that would benefit from development.[1306] Thirdly, section 1C *Consumer protection objective* FSMA 2000 and section 3B *Regulatory principles to be applied by both regulators* FSMA 2000 which require the FCA to have regard to, amongst other things, the general principle that consumers should *take responsibility for their decisions* when considering what degree of protection for consumers may

---

[1301] The matters which are relevant in determining whether a regulated firm's business model is suitable under paragraph 2F to Schedule 6 *Threshold Conditions* FSMA 2000 currently include: (a) whether the business model is compatible with the regulated firm's affairs being conducted, and continuing to be conducted, in a sound and prudent manner; (b) the interests of consumers; and (c) the integrity of the UK financial system. Paragraph 3E to Schedule 6 *Threshold Conditions* FSMA 2000 states that a regulated firm's business model must be suitable having regard to the FCA's operational objectives. Paragraph 2F applies to FCA solo-regulated firms, and paragraph 3E applies to firms that are dual regulated by the FCA and PRA.

[1302] Pamela Hanrahan, 'Corporate governance, financial institutions and the "social licence"' (2016) 10 (3) Law and Financial Markets Review 123 <http://dx.doi.org/10.1080/17521440.2016.1243878> accessed 22 September 2022.

[1303] This is the main concern of corporate governance. <http://dx.doi.org/10.1080/17521440.2016.1243878> accessed 15 September 2022.

[1304] This idea is inspired by section 172(1) *Duty to promote the success of the company* Companies Act 2006, which enshrines the principle of enlightened shareholder value ('ESV').

[1305] This is an adaptation of the 'board level ethics committee' proposed by Dan Awry, William Blair and David Kershaw. Dan Awry, William Blair and David Kershaw, 'Between Law and Markets: Is there a Role for Culture and Ethics in Financial Regulation?' (2013) 38 Delaware Journal of Corporate Law 191.

[1306] This may be enforced through a requirement for firms to make restitution where harms are caused.

be appropriate, should be amended to clarify that it is only reasonable to expect consumers to exercise responsibility once financial institutions have demonstrated fulfilment of their duty to treat customers fairly. Moreover, that the duty to treat customers fairly should not be diluted by a customer's alleged failure to take responsibility for their decisions.

2.3. The regulators' rulebooks

2.3.1. PRIN and related provisions

This chapter recommends that we design a single corpus of ethical principles, which converges both general, and AI specific ethical principles, rather than to create separate ethical regimes for humans and AI technology. This chapter proposes that the current FCA Principles for Business and PRA Fundamental Rules should be re-examined in the light of the following ethical principles: *autonomy*, *honesty*, *trustworthiness*, *transparency* and *explainability*, *fairness*, *prudence*, *sustainability* and *stewardship*, *justice* and *legitimacy and privacy*. While the FCA Principles for Businesses and PRA Fundamental Rules should represent a single set of ethical principles, the new Ethics Sourcebooks – the GENETHICS and TECHETHICS Sourcebooks in the FCA Handbook, and general provisions in the PRA Rulebook – will provide further particulars on how the ethical principles will apply to humans and to AI technology. In terms of related provisions, given that the FCA and PRA may only bring enforcement proceedings against firms for breaches of the FCA Principles and PRA Fundamental Rules in respect of regulated activities,[1307] we should ensure that AI or machine learning based financial services also fall within the regulatory perimeter. This means that the definition of 'regulated activities' in section 22 FMSA 2000 *Regulated Activities*, and the definition of 'specified activities' and 'specified investments' in the Financial Services and Markets Act 2000 (Regulated Activities) Order 2001 should be sufficiently broad to include AI or machine learning based financial services.

2.3.2. New Ethics Sourcebooks

This chapter recommends the incorporation of new ethics sourcebooks in the FCA Handbook and PRA Rulebook, for the benefit of the regulators, firms and consumers. The GENETHICS and TECHETHICS Sourcebooks in the FCA Handbook, and general provisions in the PRA Rulebook will be designed to re-establish the social purpose of the financial markets, explain the fundamental components of ethics, the traditional ethical frameworks of deontology, virtue ethics

[1307] This is with the exception of FCA Principles 3, 4 and 11, which also apply to unregulated activities; and Principle 5, which applies to ancillary unregulated activities.

and utilitarianism, and an integrated ethical approach for regulating the relationship between conduct, character, and consequences in financial services.

2.3.3. GENETHICS Sourcebook

The GENETHICS Sourcebook and PRA Rulebook will specify that the FCA and PRA have a 'social purpose' statutory objective, which is to provide greater focus on the social purpose of finance and the ultimate aim of ensuring a just distribution of benefits and burdens amongst consumers and financial institutions in society. Secondly, that the FCA and the PRA, when discharging their general functions, will have regard to firms serving society, including medium to long-term growth of the real economy, supporting SMEs, and addressing sustainability and the environmental issues.[1308] The GENETHICS Sourcebook and PRA Rulebook will also explain the six concepts which provide a framework for the practice of ethics as follows: welfare, duty, rights, justice, honesty, and dignity. In addition, they will explain the three broad components of ethics. Firstly, ethics is concerned with conduct by both individuals and organisations. On this basis, ethics involves doing what is right and not doing wrong, fulfilling one's obligations or duties, respecting people's rights, acting fairly or justly, and treating others with dignity. Secondly, ethics relates to who we are, our character and our virtues. Thirdly, ethics deals with the evaluation and justification of practices, states of affairs, institutions, and systems. The integrated approach to ethics regulates the relationship between conduct, character and consequences.

The GENETHICS Sourcebook and PRA Handbook should distinguish between '*a priori'* and '*a posteriori'* ethical principles. For principles to be *a priori,* they must be inherent in reason, rather than derived from experience or observation. *A posteriori* judgement, which is based on empirical knowledge, only reveals what we actually do and is therefore inappropriate for the purposes of identifying what we ought to do as unconditional requirements. Therefore, the GENETHICS Sourcebook and PRA Handbook should encourage firms to treat the FCA Principles and PRA Fundamental Rules, as '*a priori'* ethical principles. The GENETHICS Sourcebook and PRA Handbook should also explain the difference between universal or perfect duties, and non-universal or imperfect duties. For example, the duty to act with loyalty is a non-universal or imperfect duty. Therefore, we may construct a rule rejecting the maxim of refusing to be '*loyal*' or to protect the interests of customers, but not the adoption of a maxim of being loyal to *all* customers, which would fail on the grounds of impossibility. Indeed, firms may have a

[1308] n 1283 above.

fundamental obligation to be *loyal* to the interests of their customers, however what it will take to discharge this fundamental obligation will differ depending upon the needs of customers.

The GENETHICS Sourcebook and PRA Rulebook should elaborate upon the ethical principles which underpin the FCA Principles for Businesses and PRA Fundamental Rules. For example, they should explain:

The ethical principle '*integrity*' refers to the integrative judgement relating to the control of character, conduct and consequences. Therefore, it should be construed as an adjunctive virtue, as opposed to a substantive virtue. On this basis, if firms fail to demonstrate integrative ethical judgement in their decision-making processes, they may be found in breach of its duty to *conduct its business with integrity*.

The ethical principles '*honesty*' and '*trustworthiness*' should be adopted as part of our regulatory standards. The quality of being honest is necessary for developing relationships of trust, which is a basic ethical requirement in most spheres of life. Meanwhile, we should aim to place trust in other persons, institutions and complex processes with intelligent judgement, i.e. when there is appropriate evidence of their '*trustworthiness*' in the relevant matters.

The duty to act with '*due skill, care and diligence'* should be interpreted objectively, through the use of *a priori* reason. The common law standard may lead us to interpret what is '*reasonable care* and *skill*' on the basis of *a posteriori* judgements, which only reveal what we actually do, and is inappropriate for the purposes of identifying what we ought to do as unconditional requirements. However, the duty to act with '*due skill, care and diligence'* is a non-universal and imperfect duty. This demands only the rejection of a maxim of refusing to act with care, and not the adoption of a maxim of acting with care to everyone. Therefore, what it will take to discharge this duty will differ depending upon the needs of customers.

The ethical principle '*prudence*' is regarded as an adjunctive virtue. It is concerned with *how* we make moral decisions, rather than any moral substance. The requirement to act with '*prudence*' is a hypothetical imperative, which does not command an action *per se*, but rather it is a means to another moral purpose, i.e. dealing *justly* with other persons, treating customers *fairly* or long-term sustainability. On this basis, notions of '*sustainability*' and '*stewardship*' may be conceived in terms of '*prudence*'. '*Stewardship*' refers to the responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable benefits for clients, the financial system, the economy, the environment and society. Meanwhile, '*sustainability*' seeks to fairly distribute benefits and burdens among stakeholders, such as

customers, shareholders, employees, suppliers, competitors, wider society and the natural environment.[1309] Therefore, '*sustainability*' seeks to maintain a balance between stakeholder rights and interests, and, thereby, adding value to the whole of society.

The term 'fairness', should be interpreted objectively, through the use of *a priori* reason. However, we should also seek to locate '*fairness*' within the context of pursuing a broader social cooperative venture. Indeed, we will only appreciate the ethical significance of fairness once we realise that we are interconnected social entities, in a myriad of different transactions, bargains and practices.

The ethical principles '*justice*' and '*legitimacy*' should be adopted as part of our regulatory standards. The concept of justice includes *distributing benefits and burdens* fairly among people, justly *imposing penalties* on those who do wrong, and justly *compensating* persons for their losses when others have wronged them. However, we should seek a broader conception of justice which is *systemic*, *structural* and *prophylactic*. In a just system or structure, benefits and burdens are distributed fairly among people in society, so that the degree of inequality currently prevailing in our societies may be reduced. Additionally, it provides *prophylaxis* as it seeks to avoid or reduce inequalities, and prevent or limit the incidences of retribution and redress. The core foundation of this *systemic* sense of justice is human dignity. Meanwhile, the process of legislating laws and regulations should be grounded in establishing, or re-establishing legitimacy of financial markets and financial institutions for our society.

2.3.4. TECHETHICS Sourcebook

The TECHETHICS Sourcebook and PRA Rulebook should distinguish ethical standards for humans, and the ethical standards for the AI. In terms of rules for humans, those involve telling humans what *they* should or should not do. For example, they must ensure *autonomy*, *responsibility*, *honesty*, *explainability*, *technical robustness and safety*, *trustworthiness*, *fairness*, *justice and legitimacy, prudence, sustainability and stewardship* and *privacy* regarding the AI. They also require that humans make it intelligible how responsibility is attributed when things go wrong. Meanwhile, the rules for AI tell the AI what *it* should do. For example, it must identify itself as an AI system to another agent, and the AI system must be able to explain its thoughts and actions to humans. The standards for AI should include *explainability*, *justice and fairness, non-maleficence and privacy*. The TECHETHICS Sourcebook and PRA Rulebook should

[1309] Muel Kaptein and Johan Wempe, *The Balanced Company, A Theory of Corporate Integrity* (OUP 2002). See also section 172(2) Companies Act 2006.

explain that any AI capabilities must be embedded in the AI system to allow it to be self-explanatory. The TECHETHICS Sourcebook and PRA Rulebook should also require financial institutions to ensure explainability of their AI systems from the design stage. *Ex post* explainability can often be achieved through retrospective analysis of the AI technology's operations, and will be appropriate if the main goal is to compensate victims of incorrect or unfair decisions.[1310] *Ex ante* explainability is more difficult, and can limit the use of some AI technologies such as artificial neural networks. It should only be sought where the AI presents risks to fundamental rights, or where society needs reassuring that the technology can safely be used.[1311] The TECHETHICS Sourcebook and PRA Rulebook should require that AI systems are ethically designed through computing ethical rules and principles. The challenge will be for lawyers, philosophers and engineers to determine the computational programming, or coding for the various faculties, and building those faculties in AI systems. Notwithstanding, in respect of rules for AI, there remains an inextricable relationship between AI and the human designer, builder, programmer and user. While we may have rules and standards for ethical AI, there should always be human agency for designing, and ultimately taking responsibility for AI. Finally, the TECHETHICS Sourcebook and PRA Rulebook should explain that the ultimate or end purpose of AI is represented by the rules for humans. Indeed, ensuring that we meet the end purpose of AI will always be the responsibility of humans.

2.3.5.Systems and controls

The SYSC Sourcebook in the FCA Handbook and the PRA Rulebook should set out the responsibilities of senior management, front-office and middle-management, and more junior, technical employees for systems centred on AI. In addition, the SYSC Sourcebook and the PRA Rulebook should establish an AI certification process and specify the requirements. This process would require AI developers seeking certification to perform safety testing and submit the test results to the FCA and PRA along with their certification application.[1312] Firms seeking certification of AI systems would need to disclose all technical information regarding the technology, including: (1) the complete source code; (2) a description of all hardware and software environments in which the AI has been tested; (3) how the AI performed in the testing environments; and (4) any other information relevant to the safety of the AI technology. After disclosure, the FCA or PRA should be required to conduct its own assessment of the safety of

[1310] n 1288 above.

[1311] n 1288 above.

[1312] n 1287 above.

the AI technology.[1313] The SYSC Sourcebook and the PRA Rulebook should establish a mechanism separate from the certification process for reviewing existing AI that may present a risk to the public.[1314] Finally, the SYSC Sourcebook and the PRA Rulebook should stipulate that human agency is still required for designing and ultimately taking responsibility for fully autonomous rule-generating or human-machine rule-generating approaches. Therefore, decisions made by a computer, machine or robot must always be subject to human control.

2.3.6. Consumer redress and enforcement

This chapter recommends introducing further restitutionary powers, which enable the regulators to require firms to make restoration where harms are caused to stakeholders, including customers, shareholders, employees, suppliers, wider society and the natural environment.[1315] This will allow the financial regulators to enforce against firms which pursue detrimental purposes and activities prohibited under Schedule 6 *Threshold Conditions* FSMA 2000. Secondly, this chapter proposes that we consider a new distributed approach to enforcement and consumer redress for regulatory breaches involving AI and machine learning systems. Distributed moral actions are morally loaded actions, i.e. good or bad, which are caused by local interactions that are morally neutral, i.e. a 'perfect storm' event. The distributed strategy allocates responsibility for a whole causally relevant network to each agent, irrespective of the degrees of intentionality, informedness and risk aversion of such agents, i.e. faultless responsibility. On this basis, we should shift our focus from an agent-oriented ethics, which concerns the individual, to a patient-oriented ethics, which involves the well-being and ultimate prosperity of the system. Procedurally, we should locate a non-natural responsibility in artificial moral agents, but also require that the associates of an AI system, i.e. its programmers or users, take responsibility, even where these individuals could not have controlled or foreseen the machine's behaviour. Alternatively, we could provide for a collective responsibility mechanism which assigns distributed moral responsibility in distributed environments, such as a network of agents, some of which are human and some of which are artificial, which may cause distributed moral actions.

[1313] n 1287 above.

[1314] n 1287 above.

[1315] This could be implemented by instituting a regulatory collective redress mechanism. Shazia K Afghan, 'Should private opt-out collective redress actions be introduced in the UK for the resolution of widespread consumer financial services claims? Part I' (2016) 31(4) Journal of International Banking Law and Regulation 194.

APPENDIX 1

Overview of Ethical Principles

LEGAL AND REGULATORY STANDARDS	UNDERLYING ETHICAL PRINCIPLES	DISTILLED ETHICAL PRINCIPLES
FCA PRIN	Integrity, due skill, care and diligence, prudence, loyalty, fairness, transparency	Fairness, Honesty, Integrity, Loyalty, Prudence, Skill, Care, Diligence, Transparency, Fitness, Satisfactory quality
FCA SYSC	Reasonable skill and care	
COCON Code of Conduct	Integrity, due skill, care and diligence, transparency, fairness, loyalty	
FCA APER	Integrity, due skill, care and diligence, transparency	
FCA FIT	Honesty, integrity, skill, prudence	
FCA TC	Skills, knowledge and expertise	
FCA GENPRU	Prudence	
PRA Fundamental Rules	Integrity, reasonable skill, care and diligence, prudence, loyalty, fairness, honesty, transparency	
PRA Fitness and Propriety	Integrity, competence, knowledge and experience, prudence	
FCA COBS	Honesty, fairness, professional, loyalty.	
PRA Conduct Standards	Integrity, due skill, care and diligence, transparency, prudence.	
Market manipulation	Honesty	
Causing a financial institution to fail	Skill, care and diligence, prudence	
Stewardship	Integrity, skill, care and diligence, prudence, loyalty	
Corporate governance	Integrity, skill, care and diligence, prudence, loyalty	
Duty to advise	Reasonable care and skill	

Duty not to misstate information, and explain nature and effect of a transaction	Honesty	
Duty to carry out principal’s lawful instructions only	Skill, care and diligence	
Duty to use reasonable care, skill and diligence, and reasonable despatch	Skill, care and diligence	
Duty not to allow interests to conflict with those of principal	Loyalty	
Duty to make full disclosure	Honesty	
Duty not to take advantage of position, take bribes or secret commissions	Loyalty, honesty	
Duty not to delegate office	Responsibility, loyalty	
Duty to account	Responsibility, loyalty	
Companies Act 2006 directors’ duties	Reasonable care, skill and diligence, loyalty	
Supply of Goods and Services Act 1982	Reasonable care and skill	
UCTA 1977	Fairness	
Misrepresentation Act 1967	Honesty	
Sale of Goods Act 1979	Fitness, satisfactory quality and transparency	

APPENDIX 2

Proposed amendments to FSMA 2000

“The social purpose objective

(1) FSMA 2000 is amended as follows.

(2) In section 1B (FCA’s general duties), after subsection (1)— insert—

“(aa) advances the social purpose objective (see section 1B(1A)).”

(3) After section 1B(1) insert—

“The FCA's social purpose objective is: facilitating the social purpose of the financial services sector of the United Kingdom”.

(4) In section 2B (PRA's general objective)—

(a) for subsection (1) substitute—“(1) When discharging its general functions the PRA must, so far as is reasonably possible, act in a way which is (a) compatible with its social purpose objective and (b) advances its general objective —

(b) after subsection (1) insert— (1A) The PRA’s social purpose objective is: facilitating the social purpose of the financial services sector of the United Kingdom”.

(5) In this Act “social purpose” means a commitment to the responsible allocation, management and oversight of capital to create long-term value for customers and beneficiaries leading to sustainable, and fairly distributed benefits and burdens, for customers, shareholders, employees, suppliers, the financial system, the economy, the natural environment, sustainability and society.”

“Regulatory principles: society, real economy, SMEs and environment.

In section 3B of FSMA 2000 (regulatory principles to be applied by both regulators), in subsection (1) insert— “(ba) to have regard to firms serving society, including medium to long-term growth of the real economy, supporting SMEs, and addressing environmental and sustainability considerations.”

BIBLIOGRAPHY

Abbott P and Gibbard R, ‘Fintech threatens bank lending: “cloud funding” and the bank of [the] Amazon’ (2017) 32(9) Journal of International Banking & Financial Law 572.

Abbott R, *The Reasonable Robot: Artificial Intelligence and the Law* (Cambridge University Press 2020).

Afghan S K, ‘Should private opt-out collective redress actions be introduced in the UK for the resolution of widespread consumer financial services claims? Part I’ (2016) 31(4) Journal of International Banking Law and Regulation 194.
— — ‘A new duty of care for financial firms - only one part of the story?’ (2019) 34(7) Journal of International Banking Law and Regulation 222.

Akerlof G, *Animal Spirits: How Human Psychology Drives The Economy And Why It Matters For Global Capitalism* (Princeton University Press 2009).

Akinbami F, ‘Is meta-regulation all it’s cracked up to be? The case of UK financial regulation’ (2013) Journal of Banking Regulation, 14(1), 16-32.

Alexander K, ‘England & Wales’ in Danny Busch and Cees Van Dam (eds), *A Bank’s Duty of Care* (Bloomsbury 2017).

Allen C, Varner G & Zinser J, ‘Prolegomena to any future artificial moral agent’ (2000) 12(3) Journal of Experimental & Theoretical Artificial Intelligence 251.

Andenas M, The Foundations and Future of Financial Regulation: Governance for Responsibility (Routledge 2014).

Anderson M and Anderson S L, ‘Machine ethics: creating an ethical intelligent agent’ (2007) 28(4) AI Magazine 15.
— — *Machine Ethics* (Cambridge University Press 2011).
— — and Armen C (2005), ‘Toward Machine Ethics: Implementing Two Action-Based Ethical Theories’. In AAAI Fall Symposium Technical Report on Machine Ethics, AAAI Press.

Anderson S L, ‘Being Morally Responsible for an Action Versus Acting Responsibly or Irresponsibly’ (1995) 20 Journal of Philosophical Research 453.

— — and Anderson M, ‘How Machines Can Advance Ethics’ (2009) 72 Philosophy Now.

Angel J, ‘Fairness in Financial Markets: The Case of High Frequency Trading’ (2013) 112 Journal of Business Ethics 585.

Annas J, ‘Virtue and Eudaimonism’ (1998) 15 Social Philosophy & Policy 1.

Anscombe E M, ‘Modern Moral Philosophy’ (1958) 33 Philosophy 1.

Aquinas T, *Summa Theologica* (Burns Oates & Washbourne 1912).

Argandoña A, ‘Ethics and Digital Innovation in Finance’ in Leire San-Jose, Jose Luis Retolaza, Luc van Liedekerke (eds), *Handbook on Ethics in Finance* (Springer 2021).

Aristotle, *Physics* (Robin Waterfield and David Bostock, eds, OUP 2020).

Aristotle, *The Nicomachean Ethics* (David Ross, tr, Lesley Brown, ed, OUP 2009).
— — *The Politics* (Trevor J Saunders, tr, Penguin Classics 1992).

Armour J, ‘Principles of Financial Regulation’ (OUP 2016).

Arner D ‘FinTech, RegTech, and the Reconceptualization of Financial Regulation’ (2017) 37(3) Northwestern Journal of International Law & Business 371.

Arnould J, *Ethics Handbook for the Space Odyssey* (Yanette Shalter tr, ATF Press 2020).

Arslanian H, *The Future of Finance, The Impact of Fintech, AI, Crypto on Financial Services* (Palgrave Macmillan 2019).

Asimov I, ‘The Evitable Conflict’ in *Astounding Science Fiction* (Street & Smith 1950).
— — *I, Robot* (HarperVoyager 2013).

Aspinwall R, ‘Conflicting Objectives in Financial Regulation’ (1993) 63(6) Challenge 53.

Athanasiou P, *Digital Innovation in Financial Services: Legal Challenges and Regulatory Policy Issues* (Wolters Kluwer 2018).

Atiyah P S, *The Rise and Fall of Freedom of Contract* (OUP 1985).

Audi R, 'Religion, Morality, and the Law in Liberal Democratic Societies: Divine Command Ethics and the Separation of Religion and Politics' (2000) 78 The Modern Schoolman.
— — and Murphy P, 'The many faces of integrity' (2006) 16 Business Ethics Quarterly 21.

Austill A, 'Legislation Cannot Replace Ethics in Regulatory Reform' (2011) 2(13) International Journal of Business and Social Science 61.

Awry D, Blair W and Kershaw D, 'Between Law and Markets: Is there a Role for Culture and Ethics in Financial Regulation?' (2013) 38 Delaware Journal of Corporate Law 191.

Ayres I and Braithwaite J, *Responsive Regulation, Transcending the Deregulation Debate* (OUP 1992).

Baldwin R, 'Why Rules Don't Work' (1990) 53(3) Modern Law Review 321.
— — 'Really Responsive Regulation' (2008) 71 Modern Law Review 59.
— — *The Oxford Handbook of Regulation* (OUP 2010).
— — *Understanding Regulation: Theory, Strategy and Practice* (OUP 2013).

Balleisen B, *Government and Markets: Toward a New Theory of Regulation* (Cambridge University Press 2009).

Balot R, 'Aristotle's Critique of Phaleas: Justice, Equality, and Pleonexia' (2001) Hermes 32.

Bank for International Settlements, 'Foreign exchange turnover in April 2019' (bis.org) <https://www.bis.org/statistics/rpfx19_fx.htm> accessed 21 September 2022.

Bank of England, 'Policy Statement PS5/14, The PRA Rulebook' (June 2014).
— — and Financial Conduct Authority, 'Machine learning in UK financial services' (2019).

Barfield W, 'Towards a law of artificial intelligence' in Woodrow Barfield and Ugo Pagallo (eds), *Research Handbook on the Law of Artificial Intelligence* (Edward Elgar 2018).

Bayoumi T, 'Unfinished Business: The Unexplored Causes of the Financial Crisis and the Lessons Yet to be Learned' (Yale University Press 2017).

Beauchamp T and Childress J, *Principles of Biomedical Ethics* (OUP 1979).
Benson S S, 'Recognizing the Red Flags of a Ponzi Scheme' (2009) 79(6) The CPA Journal 19.

Berkeley M, 'Do the FCA's Principles for Business require a firm to give the best advice?' (2018) 4 Journal of International Banking & Financial Law 246.

Berlin I, 'Two concepts of liberty' in Anthony Quinton (ed), *Political philosophy* (OUP 1967).

Black J, 'Regulators as Rule Makers: The Formation of the Conduct of Business Rules under the Financial Services Act 1986' (DPhil thesis, University of Oxford 1993).
— — 'Decentring regulation: Understanding the role of regulation and self- regulation in a "post-regulatory" world' (2001) 54(1) Current Legal Problems 103.
— — *Rules and Regulators* (Clarendon Press 1997).
— — 'Paradoxes and Failures: 'New Governance' Techniques and the Financial Crisis' (2012) 75(6) Modern Law Review 1037.
— — and Murray A D, 'Regulating AI and machine learning: setting the regulatory agenda' (2019)10 (3) European Journal of Law and Technology.

Blair M, '*Financial Services: The New Core Rules'* (Blackstone Press Limited 1991).

Blair W and Barbiani C, 'Ethics and standards in financial regulation', in C Russo, R Lastra, W Blair (eds), *Research handbook on law and ethics in banking and finance* (Edward Elgar 2019).

Boatright J R, *Ethics in Finance, Foundations of Business Ethics* (Blackwell 2008).
— — *Finance Ethics, Critical Issues in Theory and Practice* (John Wiley & Sons 2010).
— — 'Trust and Integrity in Banking' (2011) 18(4) Ethical Perspectives.
— — *Ethics and the Conduct of Business* (Pearson 2013).
— — *Ethics in Finance*, (3rd edn, Wiley-Blackwell 2014).

Boddington P, 'Normative Modes: Codes and Standards' in Markus D Dubber, Frank Pasquale and Sunit Das (eds), *The Oxford Handbook of Ethics of AI* (OUP 2020).
— — *Towards a Code of Ethics for Artificial Intelligence* (Springer 2017).

Boobier T, *Advanced Analytics and AI : Impact, Implementation, and the Future of Work* (John Wiley & Sons 2018).

Bootie R, *The AI Economy, Work, Wealth and Welfare in the Robot Age* (Nicholas Brealey Publishing 2019).

Borg E, ‘The thesis of “doux commerce” and the social licence to operate framework’ (2021) 30 Business Ethics: A European Review 412.

Bostrom N, *Superintelligence, Paths, Dangers, Strategies* (OUP 2014).
— — and Yudkowsky E, ‘The ethics of artificial intelligence’ in Keith Frankish and William M Ramsey, *The Cambridge Handbook of Artificial Intelligence* (Cambridge University Press 2014).

Botsman R, *Who Can You Trust?: How Technology Brought Us Together – and Why It Could Drive Us Apart* (Penguin 2017).

Bowie, N. E, *Business Ethics: A Kantian Perspective* (2nd edn Cambridge University Press 2017).

Bowles, C, *Future Ethics* (NowNext Press 2020).

Bracke P, Croxson K and Jung C, ‘Explaining why the computer says ‘no’’, Financial Conduct Authority Insights (May 2019).

Bradley C, ‘FinTech's Double Edges’ (2018) 93(1) Chicago-Kent Law Review 61.

Bragg M, ‘Hegel’s Philosophy of History’ (bbc.co.uk) <https://www.bbc.co.uk/programmes/m0017k8w> accessed 21 September 2022.

Bringsjord S, Arkoudas K and Bello P, ‘Toward a General Logicist Methodology for Engineering Ethically Correct Robots’ (2006) 21(4) IEEE Intelligent Systems 38.

Bristow W, ‘Enlightenment’ (2017) The Stanford Encyclopedia of Philosophy, Edward N. Zalta (ed).

Broome J, ‘Fairness’ (1990) 91 Proceedings of the Aristotelian Society, New Series 87.

Brown C, ‘Cryptoassets and Initial Coin Offerings’ in Jelena Madir (ed), *Fintech Law and Regulation*, (Edward Elgar 2019).

Brown I and Marsden C T, *Regulating code: good governance and better regulation in the information age. Information revolution and global politics* (MIT Press 2013).

Brownsword R *The Oxford handbook of law, regulation and technology* (OUP 2017).

Brummer C, *Soft Law and the Global Financial System, Rule Making in the 21st Century* (Cambridge University Press 2012).
— — 'Disruptive Technology and Securities Regulation' (2015) 84 Fordham Law Review 977.

Brundage M and others, 'Towards Trustworthy AI Development: Mechanisms for Supporting Verifiable Claims' arXiv (2020).

Brunnermeier M K and others, 'The fundamental principles of financial regulation' (2009) Geneva Reports on the World Economy, International Center for Monetary and Banking Studies.

Bubeck D E, *Care, Gender, and Justice* (OUP 1995).

Buckley, R, Avgouleas E and Arner D (eds), *Reconceptualising Global Finance and Its Regulation* (Cambridge University Press 2016).

Buffett W, 'Chairman's Letter, Berkshire Hathaway Inc' (28 February 2002).

Bullough O, *Moneyland: Why Thieves And Crooks Now Rule The World And How To Take It Back* (Profile Books 2018).

Burnie A H, 'Blockchain: mitigating or aggravating regulatory risk?' (2016) 5 Journal of International Banking & Financial Law 293.

Burton E, 'Ethical Considerations in Artificial Intelligence Courses' (2017) 38(2) AI Magazine 22.

Busch D and Van Dam C, 'A Bank's Duty of Care: Perspectives from European and Comparative Law', in Danny Busch and Cees Van Dam (eds), *A Bank's Duty of Care* (Bloomsbury 2017).

Cahn S M and Markie P, *Ethics: History, Theory, and Contemporary Issues* (OUP 1998).

Cane P, *The Oxford Handbook of Empirical Legal Research* (OUP 2012).

Carr C L, *On Fairness* (Routledge 2017).

Center for Humane Technology, 'Together We Must Align Technology with Humanity's Best Interests' (humanetech.com) <https://www.humanetech.com/> accessed 21 September 2022.

Chaffee E, 'Securities Regulation in Virtual Space' (2017) 74(3) Washington and Lee Law Review 1387.

Chambers L, 'The keepers of the keys: remedies and legal obligations following misappropriations of cryptocurrency' (2016) 11 Journal of International Banking & Financial Law 673A.

Chapman, P and Walker J, 'When law and technology intertwine: six fintech trends' (2018) 3 Journal of International Banking & Financial Law 186.

Chen J, 'Pareto Improvement: Definition, Examples, Critique' (investopedia.com, 20 April 2021) <https://www.investopedia.com/terms/p/paretoimprovement.asp> accessed 21 September 2022.

Chesterman S, 'Artificial Intelligence And The Limits Of Legal Personality' (2020) 69(4) International & Comparative Law Quarterly 819.
— — 'Artificial Intelligence and the Problem of Autonomy' (2020) 1 Notre Dame Journal on Emerging Technologies 210.
— — *We, The Robots? Regulating Artificial Intelligence and the Limits of the Law* (Cambridge University Press 2021).

Chishti S, *The fintech book* (John Wiley & Sons 2016).

Chiu I, 'Fintech and Disruptive Business Models in Financial Products, Intermediation and Markets - Policy Implications for Financial Regulators' (2016) 21(1) Journal of Technology Law & Policy 55.
— — and Brener A, 'Articulating the Gaps in Financial Consumer Protection and Policy Choices for the Financial Conduct Authority - Moving Beyond the Question of Imposing a Duty of Care.' (2019) 14(2) Capital Markets Law Journal 217.

Coeckelbergh M, *AI Ethics* (The MIT Press 2020).

Cohen J E, *Between Truth and Power, The Legal Constructions of Informational Capitalism* (OUP 2019).

— — 'The Regulatory State in the Information Age' (2016) 17(2) Theoretical Inquiries in Law 369.

Cohen R, 'Automation and blockchain in securities issuances' (2018) 3 Journal of International Banking & Financial Law 144.

Coleman J (ed), *The Oxford Handbook of Jurisprudence & Philosophy of Law* (OUP 2004).

Coleman L, *The lunacy of modern theory and regulation* (Routledge 2015).

Collins J R, *Where Does Money Come From?* (The New Economics Foundation 2013).

Commodity Futures Trading Commission, 'Public Statements & Remarks' (cftc.org, 30 July 2013) <https://www.cftc.gov/PressRoom/SpeechesTestimony/opagensler-143> accessed 21 September 2022.

Conaglen M, 'Fiduciary regulation of conflicts between duties' (2009) 125 Law Quarterly Review 111.

Copleston F, *A History of Philosophy*, (Search Press 1946).

Copp D (ed), *The Oxford Handbook of Ethical Theory* (OUP 2006).

Cottingham J, 'Integrity and Fragmentation' (2010) 27 Journal of Applied Philosophy 2.

Cowton, C J, 'Integrity, Responsibility and Affinity: Three Aspects of Ethics in Banking' (2002) 11(4) Business Ethics, A European Review 393.

Cuccuru P, 'Beyond bitcoin: an early overview on smart contracts' (2017) 25(3) International Journal of Law and Information Technology 179.

Dabertin M T and Eckman R P, 'The OCC 'Fintech Charter' (2017) 33(6) The Review of Banking & Financial Services.

Dallas L, ‘Short termism, the financial crisis and corporate governance’ (2012) 37 Journal of Corporation Law 264.

Danzmann M, ‘Asset transfers through blockchain Applications’ (2018) 4 Journal of International Banking & Financial Law 238.

Davies H, ‘Ethics in regulation’ (2001) 10(4) Business Ethics, A European Review 280.
— — *The Financial Crisis, Who is to Blame?* (Polity Press 2010).

De Bruin B, *Ethics and the Global Financial Crisis, Why Incompetence is Worse than Greed* (Cambridge University Press 2015).

De George R T, *Business Ethics* (6th edn, Pearson Prentice Hall 2006).

Dehaene S, Lau H, Kouider S, ‘What is consciousness, and could machines have it?’ (2017) 358 (6362) Science 486.

Dehghani M and others, ‘An Integrated Reasoning Approach Moral Decision Making’ in Michael Anderson M and Susan Leigh Anderson (eds), *Machine Ethics* (Cambridge University Press 2011).

DeMott D A, ‘Rogue Brokers and the Limits of Agency Law’ in Arthur B. Laby (ed), *Cambridge Handbook of Investor Protection* (Cambridge University Press (forthcoming 2022).

Dienhart J W, ‘The Separation Thesis: Perhaps Nine Lives Are Enough: A Response to Joakim Sandberg’ (2008) 18 Business Ethics Quarterly 555.

Dierksmeier C, ‘Kant on Virtue’ (2013) 113 Journal of Business Ethics 597.

Dombalagian O, ‘Preserving Human Agency in Automated Compliance’ (2016) 11(1) Brooklyn Journal of Corporate, Financial & Commercial Law 71.

Drew J M, ‘Who Was Swimming Naked When the Tide Went Out? Introducing Criminology to the Finance Curriculum’ (2012) 9 Journal of Business Ethics Education 63.

Dubovec G, 'Bridging the gap: The regulatory dimension of secured transactions law reforms’ (2017) 22(4) Uniform Law Review 663.

Dworkin R, *Justice for Hedgehogs* (Harvard University Press 2013).

Editorial, ‘The costly lessons of the LCF scandal’ Financial Times (London, 24 June 2021).

Enyi, J , Rahman, M N, Alhaidary, H A, Walker G A, ‘The concept of cryptocurrencies and cryptotokens from an Islamic law perspective’ (2018) 9 Journal of International Banking & Financial Law 573.

Enyi, J and Yen Le, N D, ‘Regulating initial coin offerings (“crypto-crowdfunding”)’ (2017) 8 Journal of International Banking & Financial Law 495.

Erhard W, Jensen M C, and Zaffron S, ‘Integrity: A Positive Model that Incorporates the Normative Phenomena of Morality, Ethics and Legality Abridged’ (2009) Harvard Business School NOM Working Paper No. 10-061.

European Commission, ‘Action Plan: Financing Sustainable Growth’, COM (2018) 97.
— — Directorate-General for Communications Networks, Content and Technology, ‘Ethics guidelines for trustworthy AI’, Publications Office (2019).
— — Directorate-General for Justice and Consumers, ‘Liability for artificial intelligence and other emerging digital technologies’, Publications Office (2019).

European Securities and Markets Authority, ‘About ESMA’ (esma.europa.eu) <www.esma.europa.eu/sites/default/files/library/esma22-106-1338_smsg_advice_-_report_on_icos_and_crypto-assets.pdf> accessed 21 September 2022.

Explanatory Notes to the Financial Services and Markets Bill 2022-2023 [146].

Federal Reserve Bank of New York, ‘What is banking for?’ Remarks by Baroness Onora O’Neill’ (newyorkfed.org, 20 October 2016) <https://www.newyorkfed.org/medialibrary/media/governance-and-culture-reform/ONeill-Culture-Workshop-Remarks-10202016.pdf> accessed 21 September 2022.

Ficcaglia G, ‘Heads or Tails: How Europe Will Become the Global Hub for Bitcoin Business If the United States Does Not Reexamine Its Current Regulation of Virtual Currency’ (2017) 40(1) Suffolk Transnational Law Review 103.

Financial Conduct Authority, 'Glossary Terms' (handbook.fca.org.uk) <https://www.handbook.fca.org.uk/handbook/glossary/?starts-with=E> accessed 21 September 2022.

— — 'Barclays fined £59.5 million for significant failings in relation to LIBOR and EURIBOR' (fca.org.uk, 27 June 2012) <https://www.fca.org.uk/news/press-releases/barclays-fined-%C2%A3595-million-significant-failings-relation-libor-and-euribor> accessed 21 September 2022.

— — 'The FCA's approach to advancing its objectives' (fca.org.uk, July 2013) <https://www.fca.org.uk/publication/corporate/fca-approach-advancing-objectives-july-2013.pdf> accessed 21 September 2022.

— — Final Notice to Barclays Bank plc (May 2014).

— — 'FCA fines five banks £1.1 billion for FX failings and announces industry-wide remediation programme (fca.org.uk, 12 November 2014) <https://www.fca.org.uk/news/press-releases/fca-fines-five-banks-%C2%A311-billion-fx-failings-and-announces-industry-wide-remediation-programme> accessed 21 September 2022.

— — 'Interest rate hedging products (IRHP)' (fca.org.uk, 19 April 2016) <https://www.fca.org.uk/consumers/interest-rate-hedging-products> accessed 21 September 2022

— — 'Benchmark enforcement' (fca.org.uk, 22 April 2016) <https://www.fca.org.uk/markets/benchmarks/enforcement> accessed 21 September 2022.

— — 'FX remediation programme: our next steps' (fca.org.uk, 28 July 2016) <https://www.fca.org.uk/news/news-stories/fx-remediation-programme-our-next-steps> accessed 21 September 2022.

— — Final Notice to Vanquis Bank Limited (February 2018).

— — 'Cryptoasset investment scams' (fca.org.uk, 27 June 2018) <https://www.fca.org.uk/scamsmart/cryptoasset-investment-scams> accessed 21 September 2022.

— — 'Cryptoassets: our work' Consultation Paper (CP19/3, January 2019).

— — 'Prohibiting the sale to retail clients of investment products that reference cryptoassets' Consultation Paper (CP19/22, July 2019).

— — 'London Capital and Finance plc' (fca.org.uk, 14 August 2019) <https://www.fca.org.uk/news/news-stories/london-capital-and-finance-plc> accessed 21 September 2022.

— — 'Prohibiting the sale to retail clients of investment products that reference cryptoassets' Policy Statement (PS20/10, October 2020).

— — *Business Plan 2021/22* (2021).

— — ‘Strengthening our financial promotion rules for high risk investments, including cryptoassets’ Consultation Paper (CP22/2, January 2022).
— — ‘PS22/9: A new Consumer Duty’ (fca.org.uk, 27 July 2022) <https://www.fca.org.uk/publications/policy-statements/ps22-9-new-consumer-duty> accessed 21 September 2022.
— — ‘A new Consumer Duty Feedback to CP21/36 and final rules’ Policy Statement (PS22/9 July 2022).

Financial Reporting Council, ‘UK Stewardship Code’ (2020).

Financial Services and Markets Bill HC Bill (2022-23) [146].

Financial Services Authority, ‘Principles for Businesses, Response on Consultation Paper’ (1999).
— — ‘Treating customers fairly – towards fair outcomes for consumers’ (2006).
— — ‘A regulatory response to the global banking crisis’ (2009).
— — ‘The Turner Review: A regulatory response to the global banking crisis’ (2009).

Financial Services Compensation Scheme, ‘London Capital & Finance plc (LCF)’ (fscs.org.uk) <https://www.fscs.org.uk/making-a-claim/failed-firms/lcf/> accessed 21 September 2022.

Financial Stability Board, ‘Artificial intelligence and machine learning in financial services, Market developments and financial stability implications’ (2017).

Finnis J, *Fundamentals of Ethics* (Clarendon Press 1983).
— — *Aquinas: Moral, Political and Legal Theory* (OUP 2004).

Firth, S, *Firth on Derivatives Law and Practice* (Sweet & Maxwell 2003).

Fletcher G P, *Loyalty: An Essay on the Morality of Relationships* (OUP 1993).

Floridi L, ‘Distributed morality in an information society’ (2013) 19(3) Science and Engineering Ethics 727.
— — ‘Faultless responsibility: on the nature and allocation of moral responsibility for distributed moral actions’ (2016) 374 Philosophical Transactions of the Royal Society A.
— — and Cowls J, ‘A Unified Framework of Five Principles for AI in Society’ (2019) 1 Harvard Data Science Review 1.

Fox D and Green S, *Cryptocurrencies in Public and Private Law* (OUP 2019).

Frankel T, *Trust and Honesty* (OUP 2006).
— — *Fiduciary Law* (OUP 2011).

Friedman M *Capitalism and Freedom* (University of Chicago Press 1962).
— — *Essays in Positive Economics* (University of Chicago Press 1966).

Fuller L L, *The Morality of Law* (Yale University Press 1977).

Future of Life Institute, 'The Superintelligence Control Problem' (futureoflife.org, 23 November 2015) <https://futureoflife.org/2015/11/23/the-superintelligence-control-problem/> accessed 21 September 2022.

Galavielle J, 'Business Ethics is a Matter of Good Conduct and of Good Conscience?' (2004) 53(1) Journal of Business Ethics 9.

Galbraith J, *A Short History of Financial Euphoria* (Penguin Books 1994).
— — *The Great Crash 1929* (Houghton Mifflin Company 1997).

Georgosouli A, 'Regulatory interpretation: a case study of the FSA policy of rule-use' (PhD thesis, Queen Mary University of London 2008).
— — 'The nature of the FSA policy of rule use: a critical overview' (2008) 28(1) Legal Studies 119.
— — 'The Revision of the FSA's Approach to Regulation: An Incomplete Agenda?' (2010) 7 Journal of Business Law 599.

Gert B and Gert J, 'The Definition of Morality', The Stanford Encyclopaedia of Philosophy (2020) Edward N. Zalta (ed).

Gheaus A, 'Personal Relationship Goods', The Stanford Encyclopedia of Philosophy (2018) Edward N. Zalta (ed).

Gillis T. B, 'Big Data and Discrimination' (2019) 86(2) The University of Chicago Law Review 459.

Glen J, 'London Capital and Finance Statement made on 19 April 2021' (Statement UIN HCWS922).

Gloster E, 'Report of the Independent Investigation into the Financial Conduct Authority's Regulation of London Capital & Finance plc' (2020).

Goddard J, 'Parliamentary Commission on Banking Standards QSD on 3 September 2019' House of Lords Library Briefing.

Goodhart C, *Financial Regulation: Why, How and Where Now?* (Routledge 1998).
—— 'How Should We Regulate the Financial Sector?', in Adair Turner and others (eds), '*The Future of Finance and the Theory that Underpins It*' (LSE Report 2010).

Gower L C B, 'Review of Investor Protection: A Discussion Document' (HMSO, January 1982).
—— 'Review of Investor Protection' (Cmnd 9125 1984).
—— 'Review of Investor Protection: Report Part I (HMSO, 1984).
—— 'Review of Investor Protection: Report Part II (HMSO, 1985).
—— 'Big Bang and City Regulation' (1988) 51 MLR 1.

Graafland J J, 'Utilitarianism' in Jan Peil and Irene van Staveren (eds), *Handbook of Economics and Ethics* (Edward Elgar 2009).
—— 'The Credit Crisis and the Moral Responsibility of Professionals in Finance' (2011) Journal of Business Ethics, 103, 605-619.

Gustafson A, Review of 'Morality, Competition, and the Firm: The Market Failures Approach to Business Ethics', Notre Dame Philosophical Reviews.

Haeffele S and Storr V H, 'Adam Smith and the Study of Ethics in a Commercial Society' in Mark D. White (ed), *The Oxford Handbook of Ethics and Economics* (OUP 2019).

Haines F, *The Paradox of Regulation: What Regulation Can Achieve and What It Cannot* (Edward Elgar 2011).

Hanrahan P, 'Corporate governance, financial institutions and the "social licence"' (2016) 10(3) Law and Financial Markets Review 123.

Hart H L A, ‘Positivism and the Separation of Law and Morals’ (1958) 71 Harvard Law Review 593.
— — *The Concept of Law* (3rd edn, Clarendon Press 2012).

Hausman D M and McPherson M S, *Economic Analysis and Moral Philosophy* (Cambridge University Press 1996).

Hay R and Le Vesconte S, ‘Financial Regulation’ in Charles Kerrigan (ed), *Artificial Intelligence Law and Regulation*, (Edward Elgar 2022).

Hayek F A, *Law Legislation & Liberty* (Routledge & Kegan Paul 1973).

Hazels T, ‘Ethics and Morality: What Should Be Taught in Business Law?’ (2015) 19(2) Academy of Educational Leadership Journal 77.

HC Deb 7 September 2022, vol 719, cols 279–345.

Heath J, *Morality, Competition, and the Firm: The Market Failures Approach to Business Ethics* (OUP 2014).

Hebb D O, *The Organization of Behavior: A Neuropsychological Theory* (John Wiley & Sons 1949).

Heinze E, ‘The meta-ethics of law: Book One of Aristotle's Nicomachean Ethics’ (2010) 6 International Journal of Law in Context 23.

Henderson A, ‘Putting names to things: reconciling cryptocurrency heterogeneity and regulatory continuity’ (2018) 2 Journal of International Banking & Financial Law 83.

Hendry J, *Ethics and Finance: An Introduction* (Cambridge University Press 2013).

Hervey M and Lavy M, ‘The Law of Artificial Intelligence’ in Matt Hervey and Matthew Lavy (eds), *The Law of Artificial Intelligence* (Sweet & Maxwell 2021).

Herzog L (ed), *Just Financial Markets? Finance in a Just Society* (OUP 2017).

Hine, D and Peele, G , *The regulation of standards in British public life: Doing the right thing?* (Manchester University Press 2016).

HM Government, 'AI Council' (gov.uk) <https://www.gov.uk/government/groups/ai-council> accessed 21 September 2022.
— — *A guide to using artificial intelligence in the public sector* (2020).

HM Treasury, *Banking reform – protecting depositors: a discussion paper* (2007).
— — *Financial stability and depositor protection: cross-border challenges and responses* (2008).
— — *Financial stability and depositor protection: special resolution regime* (Cm 7459, 2008).
— — *Financial stability and depositor protection: strengthening the framework* (2008).
— — *Reforming financial markets* (CM 7667, 2009).
— — *A new approach to financial regulation: judgement, focus and stability* (Cm 7874, 2010).
— — *A new approach to financial regulation: building a stronger system* (Cm 8012, 2011).
— — *A new approach to financial regulation: the blueprint for reform* (Cm 8083, 2011).
— — *Cryptoasset promotions: Consultation* (July 2020).
— — *Future Regulatory Framework Review Consultation, Phase II Consultation* (CP 305, 2020).
— — *Regulation of non-transferable debt securities (mini-bonds): A consultation* (April 2021).
— — *Future Regulatory Framework (FRF) Review: Proposals for Reform* (9 November 2021).
— — *Financial promotion exemptions for high net worth individuals and sophisticated investors: A consultation* (December 2021).
— — *Cryptoasset promotions: Consultation response* (January 2022).
— — *Regulation of non-transferable debt securities (mini-bonds): Consultation response (March 2022).*
— — FCA and Bank of England, *Cryptoassets Taskforce: final report* (October 2018).

Hobbes T, *Leviathan* (first published 1651, Penguin 2007).

Hodgson G M, 'Evolution and Moral Motivation in Economics' in White M D (ed) *The Oxford Handbook of Ethics and Economics* (OUP 2019).

House of Lords Select Committee on Artificial Intelligence Report of Session 2017–19 (HL Paper 100, April 2018).

Howard D and Muntean I, 'Artificial Moral Cognition: Moral Functionalism and Autonomous Moral Agency' in Thomas M Powers (ed) *Philosophy and Computing: Philosophical Studies Series* (Springer 2017).

Huang J, Chai J, Cho S, 'Deep learning in finance and banking: A literature review and classification' (2020) 14 Frontiers of Business Research in China.

Huang P, 'Trust, Guilt and Securities Regulation' (2003) 151 University of Pennsylvania Law Review 1059.

Hume D, *A Treatise of Human Nature* (1740).
— — *An Enquiry concerning the Principles of Morals* (Tom L Beauchamp ed, OUP 1998).

Hursthouse R, *On Virtue Ethics* (OUP 1999).

International Business Machines, 'What is computer vision?' (ibm.com) <https://www.ibm.com/topics/computer-vision> accessed 21 September 2022.
— — 'What is natural language processing (NLP)?' (ibm.com) <https://www.ibm.com/cloud/learn/natural-language-processing?mhsrc=ibmsearch_a&mhq=natural%20language%20processing#toc-nlp-use-ca-9-lPnWP2> accessed 21 September 2022.

Information Commissioners Office and the Alan Turing Institute 'Explaining Decisions made with AI' (2019).

Institute of Electrical and Electronics Engineers Standards Association, 'The IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems. Ethically Aligned Design:
A Vision for Prioritizing Human Well-being with Autonomous and Intelligent Systems, First Edition (2019).
— — 'About Us' (standards.ieee.org) <https://ethicsinaction.ieee.org/> accessed 21 September 2022.

International Monetary Fund, ''Powering the Digital Economy: Opportunities and Risks of Artificial Intelligence in Finance,' (2021) .

International Organization of Securities Commissions, 'IOSCO Research Report on Financial Technologies (Fintech), Report of the Board of IOSCO' (2017).

Iqbal Z and Mirakhor A, *Ethical Dimensions in Islamic Finance, Theory and Practice* (Palgrave Macmillan 2017).

Jackson R, *Jackson & Powell on Professional Liability* (8th edn, Sweet & Maxwell 2019).

Jackson T, *Prosperity Without Growth: Foundations For The Economy of Tomorrow* (2nd edn, Routledge 2017).

Jenkins H, 'The FCA's and PRA's high level standards' (2019) 169 Compliance Officer Bulletin 1.

Jobin A, Ienca M and Vayena E, 'The global landscape of AI ethics guidelines' (2019) 1 Nature Machine Intelligence 389.

Johnson R and Cureton A, 'Kant's Moral Philosophy' (2019) The Stanford Encyclopedia of Philosophy (Edward N. Zalta, ed).

Joint Committee on the draft Financial Services Bill, *Draft Financial Services Bill* (2010–11, HL 236, HC 1447).

Jones H B, 'Marcus Aurelius, the Stoic Ethic, and Adam Smith' (2010) 95 Journal of Business Ethics 89.

Kaal W, 'How to Regulate Disruptive Innovation - From Facts to Data' (2017) 57(2) Jurimetrics 169.

Kahneman D, 'Fairness as a constraint on profit seeking: entitlements in the market' (1986) 76(4) American Economic Review 738.

Kant I, *On the Common Saying: That may be correct in theory but it is of no use in practice* (1793).
— — *Groundwork of the Metaphysics of Morals*, (Mary Gregor and Jens Timmerman, eds and trs, Cambridge University Press 2012).

Kaptein M and Wempe J, *The Balanced Company, A Theory of Corporate Integrity* (OUP 2002).

Keating R and Wright L, 'AI and Professional liability' in Matt Hervey and Matthew Lavy (eds), *The Law of Artificial Intelligence* (Sweet & Maxwell 2021).

Kerrigan C, 'Artificial Intelligence and Equity' (2017) 7 Journal of International Banking & Financial Law 430.

Keyt D, 'Injustice and Pleonexia in Aristotle: A Reply to Charles Young' (1989) 27 The Southern Journal of Philosophy 251.

King M A, *The end of alchemy: Money, banking, and the future of the global economy* (Little, Brown Book Group 2016).

Kittay E, *Love's Labor: Essays on Women, Equality, and Dependency* (Routledge 1999).

Korsgaard C M, 'The Right to Lie: Kant on Dealing with Evil' (1986) 15 Philosophy & Public Affairs 325.
— — *Creating the Kingdom of Ends* (Cambridge University Press 1996).

Koslowski P, *The Ethics of Banking, Conclusions from the Financial Crisis* (Deborah Shannon tr, Springer 2012).

Lagarde C, Managing Director, International Monetary Fund, 'The Role of Personal Accountability in Reforming Culture and Behavior in the Financial Services Industry', at the New York Federal Reserve (2015).

Lastra R M and Brener A H, 'Justice, financial markets, and human rights', in Lisa Herzog (ed), *Just Financial Markets? Finance in a Just Society* (OUP 2017)

Lastra R M and Sheppard M J, 'Ethical foundations of financial law' in Russo C, Lastra R, Blair W (eds), *Research handbook on law and ethics in banking and finance* (Edward Elgar 2019).

LawTech Delivery Panel 'Legal statement on cryptoassets and smart contracts, UK Jurisdiction Taskforce' (November 2019).

Lessig L, *Code and Other Laws of Cyberspace: Version 2.0* (Basic Books 2006).
— — *Fidelity & Constraint: How the Supreme Court Has Read the American Constitution* (OUP 2019).

Letter from Andrew Bailey to Rt Hon Nicky Morgan (30 January 2018).

Lewis M, *Religion and Finance: Comparing the Approaches of Judaism, Christianity and Islam*, (Edward Elgar 2019).

Liao S M (ed), *Ethics of Artificial Intelligence* (OUP 2020).

Lin P, Jenkins R, Abney K (eds), *Robot Ethics 2.0: From Autonomous Cars to Artificial Intelligence*, (OUP 2017).

Linklaters, 'Artificial Intelligence in Financial Services, Managing machines in an evolving legal landscape' (2019).

Llewellyn D T, 'The Economic Rationale of Financial Regulation', FSA Occasional Paper No. 1, London, Financial Services Authority (1999).

London Bullion Market Association, 'Prices and data, LBMA Gold Price' (lbma.org.uk) < https://www.lbma.org.uk/prices-and-data/lbma-gold-price> accessed 21 September 2022.

Lu L, 'Bitcoin: speculative bubble, financial risk and regulatory response' (2018) 3 Journal of International Banking & Financial Law 178.
— — Decoding Alipay: mobile payments, a cashless society and regulatory challenges' (2018) 1 Journal of International Banking & Financial Law 40.

Luckraz A B, '*The Weavering case in the offshore world*' (2016) 27 ICCLR 217.

MacIntyre A, *A Short History of Ethics: A History of Moral Philosophy from the Homeric Age to the 20th Century* (Routledge Classics 2003).
— — *After Virtue* (3rd edn, University of Notre Dame 2007).

MacNeil I, 'Rethinking conduct regulation', (2015) 7 Journal of International Banking & Financial Law 413.
— — and O'Brien J (eds), *The Future of Financial Regulation* (Hart Publishing 2010).

Madir J, *Fintech Law and Regulation* (1st edn, Edward Elgar 2019).

Marmor A, *Law in the age of pluralism* (OUP 2007).

Mautner T (ed), *The Penguin Dictionary of Philosophy* (2nd edn, Penguin 2005).

Mawrey R, 'The Law of Artificial Intelligence Publication Review' (2021) 27(3) Computer and Telecommunications Law Review 87.

Max R, Kriebitz A and Von Websky C, 'Ethical Considerations About the Implications of Artificial Intelligence' in Leire San-Jose, Jose Luis Retolaza, Luc van Liedekerke (eds), *Handbook on Ethics in Finance* (Springer 2021).

Mayer C, *Prosperity: Better Business Makes the Greater Good* (OUP 2018).

Mazzucato M, *The Value of Everything: Making and Taking in the Global Economy* (Penguin Books 2018).

McCosh A M, *Financial Ethics* (Springer 1999).

McFall L, 'Integrity' (1987) 98(1) Ethics 5.

McIlroy D, *The End of Law, How Law's Claims Relate to Law's Aims* (Edward Elgar 2019).

McMeel G, '"Every word you just said was wrong": holding banks to higher standards (Part One)' (2018) 4 Journal of International Banking & Financial Law 218.
— — '"The enforcement of basic norms of commerce and of fair and honest dealing": holding banks to higher standards (Part Two)' (2018) 5 Journal of International Banking & Financial Law 294.

McNaughton D, 'Deontology' in David Copp (ed), *The Oxford Handbook of Ethical Theory* (OUP 2006).

McPhail K, 'Professions, Integrity and the Regulatory Relationship: Defending and Reconceptualising Principles-based Regulation and Associational Democracy' in MacNeil I and O'Brien J (eds), *The Future of Financial Regulation* (Hart Publishing 2010).

McTaggart N A, 'Follow the Money to Achieve Success: Achievable or Aspirational' (2017) 24(3) Journal of Financial Crime 425.

Michel T, *Peace and Dialogue in a Plural Society* (Blue Dome Press 2014).

Mill J S, *Utilitarianism* (OUP 1871).

Millett P, 'Equity's place in the law of commerce' (1998) 114 Law Quarterly Review 214.
— — 'Bribes and Secret Commission Again' (2012) CLJ 583.

Milne A, *The Fall of the House of Credit: What Went Wrong in Banking and What Can Be Done to Repair the Damage?* (Cambridge University Press 2009).

Minsky H P, 'The Financial Instability Hypothesis: An Interpretation of Keynes and an Alternative to 'Standard' Theory' (1977) 16 Nebraska Journal of Economics and Business 5.
— — 'The Financial Instability Hypothesis' (1992) The Jerome Levy Economics Institute Working Paper No. 74.

Mishan E J, *Introduction to Normative Economics* (OUP 1981).

Mishkin F, *The Economics of Money Banking and Financial Markets* (Pearson Education 2012).

Mittelstadt B, 'Principles alone cannot guarantee ethical AI' (2019) 1 Nature Machine Intelligence 501.

Moberg D J, 'Practical Wisdom and Business Ethics' (2007) 17 Business Ethics Quarterly 536.

Möller G, *Banking on Ethics: Today's perception is tomorrow's norm*. (Euromoney Books 2012).

Moloney N, *The Oxford Handbook of Financial Regulation* (OUP 2015).

Montréal Declaration for a Responsible Development of AI (2017).

Moon C, *Business Ethics: Facing Up to the Issues: The Issues and How to Manage Them* (Economist Books 2001).

Mooney C W, 'FinTech and Secured Transactions Systems of the Future' (2018) 81 Law and Contemporary Problems 1.

Moor J, ‘Four Kinds of Ethical Robots’ (2009) 72 Philosophy Now.

Moore G E, *Principia Ethica* (Cambridge University Press 1903).

Morgan B, *An Introduction to Law and Regulation* (Cambridge University Press 2007).

Morris C (ed), *Contemporary Philosophy in Focus* (Cambridge University Press 2010).

Morris N and Vines D (eds), *Capital Failure: Rebuilding Trust in Financial Services* (OUP 2014).

Mueller H and Ostmann F, ‘AI transparency in financial services: Why, what, who and when?’ (turing.ac.uk, 18 February 2020) <https://www.turing.ac.uk/news/ai-transparency-financial-services> accessed 21 September 2022.

Munday R, *Agency Law and Principles* (3rd edn, OUP 2016).

Murray A, *Information Technology Law: The Law and Society* (OUP 2016).

Myskja B K, ‘The categorical imperative and the ethics of trust’, (2008) 10 Ethics and Information Technology 213.

Ng Rosabel, ‘Inside and outside Singapore's proposed FinTech regulatory sandbox: balancing supervision and innovation’ (2016) 10 Journal of International Banking & Financial Law 596.

Ng A W and Kwok B K B, ‘Emergence of Fintech and cybersecurity in a global financial centre: Strategic approach by a regulator’ (2017) 25(4) Journal of Financial Regulation and Compliance 422.

Nobel Prize, ‘Press release’ (nobelprize.org, 14 October 1998) <https://www.nobelprize.org/prizes/economic-sciences/1998/press-release/> accessed 21 September 2022.

Noorman M, ‘Computing and Moral Responsibility’ The Stanford Encyclopedia of Philosophy (2020) Edward N. Zalta (ed).

Norman J, *Adam Smith: What He Thought and Why it Matters* (Penguin Books 2019).

Norman R, *The Moral Philosophers: An Introduction to Ethics* (2nd edn, OUP 1998).

Nowak E, 'Can human and artificial agents share an autonomy, categorical imperative-based ethics and "moral" selfhood?' (2018) 6(2) Filozofia Publiczna i Edukacja Demokratyczna 169.

Obie S J, 'Blockchain and the syndicated loan market - a closer look' (2017) 11 Journal of International Banking & Financial Law 711.

O'Brian J *Integrity, Risk and Accountability in Capital Markets: Regulating Culture* (Hart Publishing 2014).

O'Connor J, 'Are Virtue Ethics and Kantian Ethics Really so Very Different?' (2009) 87 New Blackfriars 238.

Ofoego O, 'Arbitration and financial institutions: an overview' (2018) 4 Journal of International Banking & Financial Law 236.

O'Neill O, *Constructions of Reason, Exploration of Kant's practical philosophy* (Cambridge University Press 1989).
— — *Towards justice and virtue: A constructive account of practical reasoning* (Cambridge University Press 1996).
— — *Acting on Principle, An Essay on Kantian Ethics* (2nd edition, Cambridge University Press 2013).
— — 'Trust, Trustworthiness, and Accountability' in Morris N and Vines D (eds), *Capital Failure: Rebuilding Trust in Financial Services* (OUP 2014).
— — *Constructing Authorities: Reason, Politics and Interpretation in Kant's Philosophy* (Cambridge University Press 2015).
— — *From Principles to Practice: Normativity and Judgement in Ethics and Politics* (Cambridge University Press 2018).
— — 'Trust and Accountability in a Digital Age' (2020) 95(1) Philosophy 3.
— — 'Justice without Ethics: A Twentieth-Century Innovation?' in J. Tasioulas (ed), *The Cambridge Companion to the Philosophy of Law* (Cambridge University Press 2020).

Oppy G and Dowe D, 'The Turing Test', The Stanford Encyclopedia of Philosophy (2020) Edward N. Zalta (ed).

Ostmann F, and Dorobantu C, ‘AI in financial services’ Alan Turing Institute (2021).

Paech P, ‘The Governance of Blockchain Financial Networks’ (2017) 80(6) MLR 1073.

Pagallo U, *The Law of Robots: Crimes, Contracts and Torts* (Springer 2013).

Parfit D, *On what matters* (Samuel Scheffler ed OUP 2011).

Parker C, *The Open Corporation: Effective Self- Regulation and Democracy* (Cambridge University Press 2010).

Parliamentary Commission on Banking Standards, *An accident waiting to happen: The failure of HBOS* (2012–13, HL Paper 144 HC 705).
— — *Banking reform: towards the right structure* (2012–13, HL Paper 126 HC 1012).
— — *Changing Banking for Good* (2013–14, HL Paper 27-II HC 175-II).
— — *Proprietary trading* (2012–13, HL Paper 138 HC 1034).

Paul E F, Miller F D Jr and Paul J (eds), *Objectivism, Subjectivism, and Relativism in Ethics* (Cambridge University Press 2008).

Peltzman S, ‘Toward a more general theory of regulation’ (1976) 19 Journal of Law and Economics 211-240.

Penrose R, *The Emperor’s New Mind* (OUP 1989).

Petersen S, ‘Machines Learning Values’ in S Matthew Liao (ed), *Ethics of Artificial Intelligence* (OUP 2020).
— — ‘Superintelligence as Superethical’ in Patrick Lin, Ryan Jenkins & Keith Abney (eds), *Robot Ethics 2.0, from Autonomous Cars to Artificial Intelligence* (OUP 2017).

Piketty T, *Capital in the Twentieth-First Century* (Harvard University Press 2014)

Pilling D, *The Growth Delusion: The Wealth and Well-Being of Nations* (Bloomsbury Publishing 2018).

Pistor K, *The Code of Capital, How the Law Creates Wealth and Inequality* (Princeton University Press 2019).

Plato, *The Republic* (Melissa Lane, Introduction, H.D.P. Lee and Desmond Lee, trs, Penguin Classics 1987).

Pointing L, 'Artificial Intelligence at work: questions of law and ethics' (2019) 481 Health Safety Bulletin 12.

Pollock A, *Finance and Philosophy: Why We're Always Surprised* (Paul Dry Books 2018).

Posner E and Vermeule A, 'Crisis Governance in the Administrative State: 9/11 and the Financial Meltdown of 2008' (2009) 76(4) University of Chicago Law Review 1613.

Powers T M, 'Machines and Moral Reasoning' (2009) 72 Philosophy Now.

Principles for Responsible Investment, 'What is fiduciary duty and why is it important?' (unpri.org, 8 September 2015) <https://www.unpri.org/fiduciary-duty/what-is-fiduciary-duty-and-why-is-it-important/247.article> accessed 21 September 2022.

Proudman J, 'Managing Machines: the governance of artificial intelligence' Bank of England (2019).

Quest D, 'Robo-advice and artificial intelligence: legal risks and issues' (2019) 1 Journal of International Banking & Financial Law 6.

Rachels J and Rachels S, *The Elements of Moral Philosophy* (7th edn, McGraw Hill 2012).

Ramsden D and Rusu J, Artificial Intelligence Public-Private Forum, Final Report (2022).

Rawls J, 'Outline for a Decision Procedure for Ethics' (1951) 60 Philosophical Review.
— — *Theory of Justice* (Belknap Press 1971).

Raz J, *Between Authority and Interpretation: On the Theory of Law and Practical Reason* (OUP 2009).

Reed C, ‘How should we regulate artificial intelligence?’ (2018) 376 Philosophical Transactions of the Royal Society A.

Reiners L, *FinTech Law and Policy: The Critical Legal and Regulatory Challenges Confronting FinTech Firms and the Policy Debates that are Occurring Across the Country* (Independently published 2018).

Reinhart C, *This time is different: Eight Centuries of Financial Folly* (Princeton University Press 2009).

Reinke G, *The regulatory compliance matrix: regulation of financial services, information and communication technology, and generally related matters* (Gold Rush Publishing 2015).

Resnik D B, ‘Ethical virtues in scientific research’ (2012) 19 Accountability in Research 329.

ResPublica, ‘Virtuous Banking: Placing ethos and purpose at the heart of finance’ (2014).

Reynolds J, *Ethics in Investment Banking* (Palgrave MacMillan 2011).

Richardson B, *Fiduciary Law and Responsible Investing: In Nature's Trust* (Routledge 2013).

Riley-Smith T and McCormick L, ‘Liability for Physical Damage’, in Matt Hervey and Matthew Lavy (eds), *The Law of Artificial Intelligence* (Sweet & Maxwell 2021).

Robinson S, *The Practice of Integrity in Business* (Palgrave Macmillan 2016).

Robson A, ‘Constancy and integrity: (un)measurable virtues?’ (2015) 24 Business Ethics: A European Review 2.

Rocchi M. ‘Technomoral Financial Agents: Ethics in the Fintech Era’ Ethics & Trust in Finance Global edition 2018-2019.

Roche, B and Jakub, J, *Completing Capitalism, Heal Business to Heal the World* (Berrett-Koehler Publishers 2017).

Rodrigo P, ‘The Dynamic of Hexis in Aristotle's Philosophy’ (2011) 42 Journal of the British Society for Phenomenology 6.

Rodríguez de las Heras Ballell T, 'Legal challenges of artificial intelligence: modelling the disruptive features of emerging technologies and assessing their possible legal impact' (2019) 24(2) Uniform Law Review 302.

Ross D and Stratton-Lake P (ed), *The Right and the Good* (OUP 1930).

Rossi F, 'Building Trust in Artificial Intelligence' (2019) 72(1) Journal of International Affairs 127.

Rouch D, 'The social licence for financial markets, written standards and aspiration' in C Russo, R Lastra, W Blair (eds), *Research handbook on law and ethics in banking and finance* (Edward Elgar 2019).
— — *The Social Licence for Financial Markets, Reaching for the End and Why it Counts* (Palgrave Macmillan 2019).

Rubin E L, 'Deregulation, Reregulation, and the Myth of the Market' (1988) 45 Washington & Lee Law Review 1249.

Rundle K, *Forms Liberate: Reclaiming the Jurisprudence of Lon L Fuller* (Hart Publishing 2012).

Russell B, *History of Western Philosophy* (Routledge Classics 2004).

Russell G and Hodges C, *Regulatory Delivery* (Hart Publishing 2018).

Russell S, *Human Compatible: AI and the Problem of Control* (Penguin Books 2019).
— — and Norvig P, *Artificial Intelligence: A Modern Approach* (3rd edn, Pearson 2016).

Russo C, Lastra R, Blair W (eds), *Research Handbook on Law and Ethics in Banking and Finance* (Edward Elgar 2019).

Sacks J, 'Morality in the 21st Century' (bbc.co.uk, 3 September 2018) <https://www.bbc.co.uk/sounds/play/p06k4xsj> accessed 21 September 2022.
— — *Morality, Restoring the Common Good in Divided Times* (Hodder & Stoughton 2020).

Sandbu, M, *The Economics of Belonging, A Radical Plan to Win Back the Left Behind and Achieve Prosperity for All* (Princeton University Press 2020).

Sandel M, *Liberalism and the Limits of Justice* (Cambridge University Press 1998).
—— *Justice: What's The Right Thing To Do?* (Penguin Books 2009).
—— *What Money Can't Buy: The Moral Limits of Markets* (Penguin Books 2012).

Sassoon D, *The Anxious Triumph: A Global History of Capitalism: 1860-1914* (Penguin 2019).

Scanlon T M, *What We Owe to Each Other* (Harvard University Press 2000).

Scheffler S, *Rejection of Consequentialism* (OUP 1994).

Scherer M U, 'Regulating Artificial Intelligence Systems: Risks, Challenges, Competencies, and Strategies', (2016) 29(2) Harvard Journal of Law & Technology.

Schneier B, *Click here to kill everybody, Security and Survival in a Hyper-Connected World* (WW Norton & Company 2018).

Scholz L, 'Algorithmic Contracts' (2017) 20(2) Stanford Technology Law Review 128.

Securities and Investments Board, '*The Background to Investor Protection - Consultative paper No.38*' (1996).

Selbst A D and Barocas S, 'The Intuitive Appeal of Explainable Machines' (2018) 87 Fordham Law Review 1085.

Sen A, 'Economics and Ethics' in Christopher Morris (ed), *Contemporary Philosophy in Focus* (Cambridge University Press 2010).
—— *On Ethics & Economics* (Blackwell 1988).

Serafimova S, 'Whose morality? Which rationality? Challenging artificial intelligence as a remedy for the lack of moral enhancement' (2020) 7 Humanities and Social Sciences Communications 119.

Shaw P, 'Context Matters: The Law, Ethics and AI' in Matt Hervey and Matthew Lavy (eds), *The Law of Artificial Intelligence* (Sweet & Maxwell 2021).

Shaxson N, *The Finance Curse: How global finance is making us all poorer* (Vintage Digital 2018).

Shiller R J, 'From Efficient Markets to Behavioral Finance' (2003) 17 Journal Economic Perspectives 83.
— — *Finance and The Good Society* (Princeton University Press 2013).

Siddiqui M, 'Islam and Human Reason' (1983) 22 Islamic Studies 11.

Simser, J, 'Bitcoin and modern alchemy: in code we trust' (2015) 22(2) Journal of Financial Crime 156.

Sinclair P, 'The English law rights of investors in Initial Coin Offerings' (2018) 4 Journal of International Banking & Financial Law 214.

Singer P (ed), *Ethics* (OUP 1994).
— — *Writings on an Ethical Life* (Fourth Estate 2001).

Slote M, *From Morality to Virtue* (OUP 1992).

Smith A, *The Theory of Moral Sentiments* (R P Hanley ed, first published 1759, Penguin Classics 2010).
— — *The Wealth of Nations* (A Skinner ed, first published 1776, Penguin Classics 1999).

Smith D, *Something Will Turn Up: Britain's economy, past, present and future* (Profile Books 2015).

Smith & Williamson, 'London Capital & Finance Plc (in administration) Joint administrators' progress report for the period from 30 July 2021 to 29 January 2022' (evelyn.com, 25 February 2022) <https://www.evelyn.com/media/r5gjq55f/joint-administrators-progress-report-30-july-2021-to-29-january-2022.pdf> accessed 21 September 2022.

Solomon R C, 'Business Ethics and Virtue', in Robert E. Frederick (ed), *A Companion to Business Ethics* (Blackwell 2003).

Soppe A, *New Financial Ethics: A Normative Approach* (Routledge 2017)

Stabille D T, Prior K A and Hinkes A M, *Digital Assets and Blockchain Technology, US law and regulation* (Edward Elgar 2020).

Statman D, 'Introduction to Virtue Ethics' in Daniel Statman (ed), *Virtue Ethics: A Critical Reader* (Georgetown University Press 1997).

Steare R, *Ethicability: How to Decide What's Right and Find the Courage to Do it* (Roger Steare Consulting 2013).

Stigler G, 'The theory of economic regulation' (1971) 1(2) The Bell Journal of Economics and Management Science 3.
— — 'Economics or Ethics?' Tanner Lectures (1981).

Stiglitz J, *The Price of Inequality* (Penguin 2013).

Story J, *Story on Agency: Commentaries on the Law of Agency* (4th edn, C. C. Little and J. Brown 1851).

Stout L, 'The Mechanics of Market Inefficiency: An Introduction to the New Finance' (2003) 28 Journal Corporation Law 635.

Sumroy R and Kingsley B, 'The International Comparative Legal Guide to: Fintech: A practical cross-border insight into fintech law' (Global Legal Group Ltd 2017).

Sunstein C, Interpreting Statutes in the Regulatory State (1989) 103 Harvard Law Review 405.

Susman P, Virtual money in the virtual bank: legal remedies for loss (2016) 3 Journal of International Banking & Financial Law 150.

Taleb N, *The Black Swan: The Impact of the Highly Improbable* (Penguin Books 2008).
— — *Antifragile: Things that Gain from Disorder* (Penguin Books 2012).
— — *Skin in the Game: Hidden Asymmetries in Daily Life* (Penguin Books 2018).

Tan Bhala K, 'Fortifying Virtue Ethics: Recognizing the Essential Roles of Eudaimonia and Phronesis' (PhD thesis, University of Kansas 2009).
— — *International Investment Management, Theory, ethics and practice* (Routledge 2016).

— — 'The philosophical foundations of financial ethics' in Russo C, Lastra R, Blair W (eds), *Research handbook on law and ethics in banking and finance* (Edward Elgar 2019).

Tapscott D, *The Digital Economy, Promises and Peril in the Age of Networked Intelligence* (McGraw-Hill 1996).

Tasioulas J, *The Cambridge Companion to the Philosophy of Law* (Cambridge University Press 2020).

Taylor K C, *FinTech Law: A Guide to Technology Law in the Financial Services Industry* (BNA Books 2014).

Tett G, *Fool's Gold: How Unrestrained Greed Corrupted a Dream, Shattered Global Markets and Unleashed a Catastrophe* (Abacus 2009).

The Atomium European Institute for Science, Media and Democracy (AEISMD), 'AI4People 7 AI Global Frameworks' Report (2020).

Thomas J, 'In defense of philosophy: a review of Nick Bostrom, Superintelligence: Paths, Dangers, Strategies' (2016) 28(6) Journal of Experimental & Theoretical Artificial Intelligence 1089.

Thompson M, *Ethical Theory* (2nd edn, Hodder Murray 2005).

Tigard D W, 'Artificial Moral Responsibility: How We Can and Cannot Hold Machines Responsible' (2021) 30 Cambridge Quarterly of Healthcare Ethics 435.

Tooze A, *Crashed: How a Decade of Financial Crises Changed the World* (Penguin 2018).

Torrance S, 'Will Robots Need Their Own Ethics?' (2009) 72 Philosophy Now.

Treasury Committee, *Banking Reform* (HC 2007–08, 1008).
— — *Financial Stability and Transparency* (HC 2007–08, 371).
— — *The run on the Rock* (HC 2007–08, 56–I).
— — *Banking Crisis: dealing with the failure of the UK banks* (HC 2008–09, 416).
— — *Banking Crisis: International Dimensions* (HC 2008–09, 615).
— — *Banking Crisis: reforming corporate governance and pay in the City* (HC 2008–09, 519).

—— *Banking Crisis: regulation and supervision* (HC 2008–09, 767).
—— *Banking Crisis: The impact of the failure of the Icelandic banks*, (HC 2008–09, 402).
—— *Too important to fail – too important to ignore*, (HC 2009–10, 261–I).
—— Oral evidence: The work of the Banking Standards Board, (HC 1715, 13 November 2018)
—— *The Future Framework for Regulation of Financial Services* (HC 2021-22, 147).

Treverton-Jones G, 'An ordinary word given an extraordinary meaning: What is 'integrity'?' (2019) LS Gaz.

Turing A, 'Computing machinery and intelligence' (1950) LIX Mind, A Quarterly Review of Psychology and Philosophy.

Turner J, *Robot Rules, Regulating Artificial Intelligence* (Palgrave Macmillan 2019).
—— 'International Regulation of Artificial Intelligence' in Matt Hervey and Matthew Lavy (eds), *The Law of Artificial Intelligence* (Sweet & Maxwell 2021).

UK Parliament, 'Role - Treasury Committee' (committees.parliament.uk) <https://committees.parliament.uk/committee/158/treasury-committee/role/> accessed 21 September 2022.

UK Research Institute, Engineering and Physical Sciences Research Council, 'Principles of robotics' (webarchive.nationalarchives.gov.uk) <https://webarchive.nationalarchives.gov.uk/ukgwa/20210701125353/https://epsrc.ukri.org/research/ourportfolio/themes/engineering/activities/principlesofrobotics/> accessed 21 September 2022.

Ulgen O, 'A 'Human-Centric and Lifecycle Approach' to Legal Responsibility for AI' (2021) 26(2) Communications Law Journal 96.
—— 'Kantian Ethics in the Age of Artificial Intelligence and Robotics' (2017) 43 Questions of International Law, Zoom-in 59.

Van De Bergh R J and Pacces A M (eds), *Regulation and Economics: Encyclopedia of Law and Economics* (2nd edn, Edward Elgar 2012).

Van Hooft S, *Understanding Virtue Ethics* (Acumen Publishing 2006).

Vanston N, 'Trust and reputation in financial services' Driver Review DR30 Foresight, Government Office for Science (2012).

Varoufakis Y, *Talking to My Daughter About the Economy: A Brief History of Capitalism* (Vintage Digital 2017).

Velasquez M G, *Business Ethics: Concepts and Cases* (7th edn, Pearson 2014).

Verity A, 'The Lowball Tapes' (bbc.co.uk) <https://www.bbc.co.uk/programmes/m0014wtn> accessed 21 September 2022.

Vickers J, 'Independent Commission on Banking: Final Report' (2011).

Vigna P, *Cryptocurrency: How Bitcoin and Digital Money are Challenging the Global Economic Order* (Vintage Digital 2015).

Villa J, *Ethics in Banking: The Role of Moral Values and Judgements in Finance* (Palgrave Macmillan 2015).

Voyiakis E, 'Contract Law and Reasons of Social Justice' (2012) 25(2) The Canadian Journal of Law and Jurisprudence 393.

Wachter S, Mittelstadt B and Russell C, 'Why fairness cannot be automated: Bridging the gap between EU non-discrimination law and AI' (2021) 41 Computer Law & Security Review.

Walker D, 'A review of corporate governance in UK banks and other financial industry entities, Final recommendations' (2009).

Walker G, 'Financial Technology Law - A New Beginning and a New Future' (2017) 50 1 International Lawyer 137.

Wallach W, 'The Challenge of Moral Machines', (2009) 72 Philosophy Now.
— — 'The Conscience of the Machine' (2009) 72 Philosophy Now.
— — and Allen C, *Moral Machines, Teaching Robots Right from Wrong* (OUP 2009).

Watson G, 'On the Primacy of Character' in Daniel Statman (ed), *Virtue Ethics: A Critical Reader* (Edinburgh University Press 1997).

Watson M, ‘Standard of care to be applied in screening cases – “absolute confidence” test - non-delegable duty’ (2020) 26(1) Medico-Legal Journal of Ireland 33.

Weber R and Rainer B, ‘FinTech - eligible safeguards to foster the regulatory framework’ (2018) JIBLR 335.

Webster K, *The Circular Economy: A Wealth of Flows* (Ellen MacArthur Foundation Publishing 2016).

Weiner J H, ‘Bank fraud: an ancient problem but is blockchain the modern solution?’ (2016) 9 Journal of International Banking & Financial Law 548.

White M D, ‘Deontology’ in Jan Peil and Irene van Staveren (eds), *Handbook of Economics and Ethics* (Edward Elgar 2009).
— — ‘With All Due Respect: A Kantian Approach to Economics’ in Mark D. White (ed), *The Oxford Handbook of Ethics and Economics* (OUP 2019).

White R, ‘The Review of Investor Protection. The Gower Report’ (1984) 47(5) The Modern Law Review 553.

Whittaker A, ‘Culture and the Crisis’ in R Williams R and L Elliott, *Crisis and Recovery: Ethics, Economics and Justice* (Palgrave MacMillan 2010).

Whittlestone J and others, ‘The Role and Limits of Principles in AI Ethics: Towards a Focus on Tensions’, (2019) Proceedings of the 2019 AAAI/ACM Conference on AI, Ethics, and Society (AIES '19) 195.
— — ‘Ethical and societal implications of algorithms, data, and artificial intelligence: a roadmap for research’ (2019) Nuffield Foundation.

Wight J B, ‘Ethical Pluralism in Economics’ in White M D (ed) *The Oxford Handbook of Ethics and Economics* (OUP 2019).

Williams B, ‘Jim and the Indians’ in Singer P (ed), *Ethics* (OUP 1994).
— — *Morality: An Introduction to Ethics* (Cambridge University Press 2012).

Woolard C, ‘The future of regulation: AI for consumer good’ Financial Conduct Authority (2019).

Yadav Y, ‘The Failure of Liability in Modern Markets’ (2016) 102(4) Virginia Law Review 1031.

Yamamura K, *Too much stuff: Capitalism in crisis* (Policy Press 2017).

Yeung K and Lodge M (eds), *Algorithmic Regulation* (OUP 2019).

Zalewski D, ‘Securitization, Social Distance, and Financial Crises’ (2010) 39(3) Forum for Social Economics’ 287.

Zeng Y, Lu E and Huangfu C, ‘Linking artificial intelligence principles’ arXiv (2018).

Zetzsche D and others, ‘Regulating a Revolution: From Regulatory Sandboxes to Smart Regulation’ (2017) 23 Fordham Law Journal of Corporate and Financial Law 31.

Zhang B, ‘United Airlines just announced 10 major changes to avoid another violent passenger-removal incident’ (businessinsider.com, 27 April 2017) <https://www.businessinsider.com/united-airlines-ceo-major-policy-change-dao-2017-4?r=US&IR=T> accessed 21 September 2022.

Zuboff S, *The Age of Surveillance Capitalism, The Fight for Human Future at the New Frontier of Power* (Profile Books 2019).