Exploring corporate violations through public data: a comparative analysis of financial offending in the UK and US

Oberheim, F.; Davies, J.; Giese, C.; Kluin, M.H.A.; Lord, N.

Journal of Criminal Justice 99 (2025) 102431

Contents lists available at ScienceDirect

Journal of Criminal Justice

journal homepage: www.elsevier.com/locate/jcrimjus

Exploring corporate violations through public data: A comparative analysis of financial offending in the UK and US

Frederike Oberheim [a,c,*], Jon Davies [b], Celine Giese [b], Marieke Kluin [c], Nicholas Lord [b]

[a] Netherlands Institute for the Study of Crime and Law Enforcement, Amsterdam, the Netherlands
[b] Department of Criminology, University of Manchester, Manchester, England, United Kingdom
[c] Institute of Criminal Law and Criminology, Leiden, the Netherlands

ARTICLE INFO

Keywords:
Violation tracker
Financial industry
Corporate crime
Corporate non-compliance
Life-course criminology
Regulation

ABSTRACT

This article examines the value of using publicly available data to analyse financial violations and regulatory enforcement actions in the UK and the US, drawing on a first-of-its-kind open-source dataset – the Violation Tracker. Through descriptive analyses, the study explores longitudinal patterns of corporate offending, focusing on corporate characteristics and sectoral enforcement dynamics. The findings highlight jurisdictional differences: in the UK, anti-money laundering (AML) deficiencies and tax violations dominate, with a notable increase in AML deficiencies since 2020, particularly in real estate and business services. In contrast, the US landscape is characterized by widespread investor protection violations, particularly in the financial industry, and exhibit stable trends over time. In both countries, the financial industry receives high penalties compared to other industries. These patterns underscore the role of regulatory frameworks and enforcement priorities in shaping observable corporate compliance. This study illustrates what insights can and cannot be generated from open-source data for the analysis of financial violations. It also engages with theoretical frameworks such as life-course criminology, advancing the understanding of corporate crime trajectories over time. The research contributes to current debates on regulatory transparency, corporate accountability, and the methodological challenges of conducting robust empirical research using publicly available regulatory data.

1. Introduction

This article examines the patterns of financial violations – defined as breaches of financial regulations, including fraud, money laundering, tax violations, and investor protection violations, which may be subject to civil, regulatory, or criminal enforcement – as well as the corporations implicated in them. While prior research has emphasized theoretical frameworks, high-profile cases, or cooperation with regulatory authorities to receive access to highly sensitive data, this study shifts the focus towards the empirical opportunities and constraints presented by publicly available data on corporate offending. To do so, we draw on the UK and US versions of the Violation Tracker (Violation Tracker, 2024: Violation Tracker UK, 2024), a first-of-its-kind database compiling data on regulatory and legal (criminal and civil) violations by corporations.[1] Through this lens, the article explores whether complex and nuanced empirical research into financial misconduct – especially longitudinal analyses – can be conducted using such open-source datasets. To address these issues, we rely on two publicly available datasets: the Violation Tracker UK and US of Good Jobs First (Violation Tracker, 2024; Violation Tracker UK, 2024). Good Jobs First describes these datasets as the "first wide-ranging database on corporate misconduct." A small but growing body of researchers with a corporate crime perspective have taken advantage of these datasets so far (Burns, Lynch, & Smith, 2024; Greenman, Zupancic, Davis, & Healy, 2023; Heese, Pérez-Cavazos and Peter, 2022; Homer & Maume, 2024; Li and Raghunandan, 2021; Neukirchen, Köchling, & Posch, 2023; Raghunandan, 2021; Shevchenko, 2021; Soltes, 2019). It includes all publicly reported/known records of criminal, civil and regulatory violations in which public and private corporations since the year 2000 paid monetary penalties as reported by both federal and state regulatory enforcement agencies in the UK and the US.

Our focus is on the financial industry, which includes banks,

* Corresponding author.
E-mail address: foberheim@nscr.nl (F. Oberheim).

[1] The Violation Tracker primarily focuses on large and medium-sized corporations rather than small companies. The term 'corporation' used here therefore encompasses various types of legal entities, including limited companies, as well as public and private companies.

https://doi.org/10.1016/j.jcrimjus.2025.102431
Received 20 December 2024; Received in revised form 2 April 2025; Accepted 9 May 2025
Available online 3 June 2025

investment firms, trust companies, and other institutions directly regulated under financial markets law (Achim & Borlea, 2020). We examine the UK and US financial industries between 2010 and 2023, drawing on enforcement records to understand patterns of regulatory violations, penalty trends, and characteristics of non-compliant corporations. In doing so, we consider the possibilities and limitations of using the Violation Tracker database to assess corporate offending and explore broader questions of transparency, accountability, and data accessibility.

Theoretically, the article contributes to the 'life-course criminology' framework which explores how offending behaviours develop and change over time – not just for individuals, but for organizations as well (Blokland, Kluin, & Huisman, 2021; Hunter, 2021; Simpson, 2019). This perspective highlights the influence of corporate life-cycle stages on compliance risks, aligning with broader theories of business strategy and governance (Wu, van Rooij, & Kluin, 2023). We explore whether publicly available data are suitable for examining these dynamics, thereby addressing the broader question of whether life-course perspectives can be meaningfully operationalized in studies of corporate crime. Thus, our focus falls within the conceptual framework of 'corporate crime', referring to "a conduct of a corporation, or of employees acting on behalf of a corporation, which is proscribed and punishable by law" (Braithwaite, 1984: 6). The term 'crime' in this field of study is used to capture not just criminal law violations, but also violations of regulatory, civil, and administrative law (Anderson & Waggoner, 2014; Garrett, 2014; Laufer, 2006; Simpson, 2002); recognizing that it is the societal response that distinguishes such behaviours legally and procedurally, rather than their inherent nature. Such corporate violations can occur at any organizational level (Blankenship, 1993; Braithwaite, 1984; Geis, 1962) and cover diverse areas, including financial, environmental, health, and labour laws (Clinard & Yeager, 1980; Simpson & Schell, 2009; Sutherland, 1983).

Understanding corporate crime in the UK and US financial industries over time is now more important than ever. For instance, since the 2007/8 global financial crisis, there has been more awareness of the risks posed by financial institutions and their employees (Hindmoor & McConnell, 2013). Major cases such as Enron, WorldCom, Madoff, and Theranos in the United States, as well as Tesco, Standard Chartered, Rolls Royce and Bank of Scotland, Parmalat, Wirecard, Jérôme Kerviel, and Bruno Iksil in the UK and the rest of Europe have affected a wide range of stakeholders, shareholders, managers, employees, clients, and suppliers (e.g., Li, 2010; Smith, 2010). Such violations have had a major impact on economies and industries and challenge the abilities of regulators (Bhaskar, Flower, & Sellers, 2019). Additionally, at the serious end of the spectrum, corporate *criminal* violations including fraud, tax evasion, and money laundering, pose significant risks by undermining public trust in institutions and regulatory systems (Achim & Borlea, 2020; Van der Lecq, 2009). However, these financial violations are only the tip of the iceberg. Most corporate violations are undetected or do not reach the magnitude of a 'scandal' (Ashton, Burnett, Diaz-Rainey, & Ormosi, 2021; Gottschalk & Gunnesdal, 2018). The financial industry, as both a gatekeeper and participant, plays a dual role in either facilitating or preventing these violations, making it a critical area for study (Yeoh, 2020). As global financial hubs, the UK and US offer theoretically comparable regulatory contexts in that they share similar political-economic ideological models, and are similarly fragmented in their regulatory response, yet we see differences in levels of enforcement historically, with the US historically demonstrating more aggressive approaches (Corruption Watch UK, 2019). Comparing these systems by using the Violation Tracker datasets from both jurisdictions sheds light on how differing regulatory models have an impact on compliance and enforcement outcomes (Baldwin & Black, 2016; Hutter, 2005).

Leveraging publicly available data from the Violation Tracker UK and US as well as annual and financial reports from the companies themselves, this study explores how corporate violations and regulatory enforcement evolve in the UK and US financial industries, and how corporate characteristics associated with different types of violations and enforcement responses over time. We provide a comparative perspective on financial misconduct, sectoral enforcement trends, and the broader implications of corporate governance and compliance. Our research contributes to the field of corporate crime by evaluating the empirical potential and practical limitations of publicly available data to identify jurisdictional patterns in corporate offending and regulatory enforcement, particularly within the financial industry.

We begin the article with a consideration of existing literature on corporate characteristics that have the potential to influence corporate violations, as well as how these issues relate to the life-course of corporate offenders/offending in the context of the UK and US financial industries. Next, we present our methodological approach, which emphasizes descriptive analyses based on Violation Tracker data. The findings section outlines observed patterns in regulatory enforcement, corporate characteristics, and penalty distributions across the UK and US financial industries. Finally, the discussion reflects on the utility of open-access datasets for studying corporate crime, highlighting both the insights generated and the limitations encountered in conducting sophisticated empirical analyses with these sources.

2. Corporate, regulatory and life-course factors influencing corporate offending

In this section, we extract insights from the corporate crime literature highlighting three significant areas that shape offending behaviour in corporations: the characteristics of corporations and industries; the regulatory landscape; and the life-course of organizations.

2.1. Corporate characteristics and corporate offending

Existing research highlights several corporate characteristics that can influence levels of corporate offending (e.g., Benson & Simpson, 2024; Huisman, 2016, 2019; Wu, van Rooij, & Kluin, 2023). Certain industries connected to finance - meaning sectors that are not part of the core financial industry but engage in high volumes of financial transactions and are subject to financial regulatory oversight - such as gambling, hotels, and entertainment, are particularly exposed to non-compliance, especially regarding financial regulations. These industries face heightened risk due to high transaction volumes, complex business structures, and cash intensiveness (Ferwerda & Kleemans, 2019), which create opportunities for financial misconduct. Furthermore, the financial industry contains enhanced risks related to money laundering, fraud, and tax evasion, as it is positioned as a gatekeeper of the financial system, placing it in a systemically relevant position (Gadinis & Mangels, 2016). Large corporations often display higher rates of corporate offending in comparison to smaller corporations, likely due to complex organizational structures that can obscure oversight and accountability (Baucus & Near, 1991; Dalton & Kesner, 1988; Hunter, 2021; Kedia, Luo, & Rajgopal, 2017; Prechel & Morris, 2010; Simpson & Koper, 1992). However, research also highlights that larger companies are often better equipped to implement compliance systems, which can promote adherence to regulations and reduce offending through improved oversight and management practices (Parker & Nielsen, 2009). Financial strain is another significant factor, as companies facing economic pressures may prioritize immediate survival or profitability over regulatory adherence, leading to intentional or unintentional violations (Alaheto, 2010; Parker & Nielsen, 2009; Wang & Holtfreter, 2012). Huisman (2016) concludes that there are distinct types of strain such as organizational and individual strain which have different underlying causes and motivations.

The robustness of corporate governance is also influential. Firms with weaker governance structures, such as those with less developed compliance policies or a lack of executive leadership on promoting compliant cultures, tend to exhibit higher risks of offending, possibly because inadequate oversight increases vulnerability to rule-breaking or

unethical behaviour (Achim & Borlea, 2020; Parker & Nielsen, 2009). Additionally, business strategy and risk appetite play a critical role. Companies that adopt high-risk strategies to prioritize profits, for example by accepting lucrative clients even though they are from industries associated with high risks of money laundering, often create environments where rule-breaking is more acceptable, either explicitly or implicitly, to achieve competitive advantage (Richards, 2013).

While longitudinal studies on the persistence of these associations over time are limited, recent meta-analytic findings by Pusch and Holtfreter (2021) indicate that these factors' effects remain consistent across both cross-sectional and longitudinal studies. This suggests that even without a longitudinal perspective, cross-sectional data still offers valuable insights into the role of corporate characteristics of corporate offending. Understanding these characteristics is central to our study, as we examine how factors like industry and company size relate to regulatory violations in the UK and US financial industries. While our analysis focuses on cross-sectional data, we can still capture key relationships between corporate traits and offending, helping to map out a snapshot of these dynamics and how they might contribute to broader patterns of corporate misconduct. For example, existing research that has used Violation Tracker data from other industries (e.g., Greenman et al., 2023; Shevchenko, 2021) suggests that financial penalties do not necessarily facilitate organizational changes or motivate corporations to improve their behaviour, meaning that violations continue to occur regardless of potential sanctions.

2.2. *Life-course criminology of corporate violations*

As noted above, longitudinal research on corporate offending remains limited, although compliance levels can fluctuate significantly within corporations (Wu, van Rooij, & Kluin, 2023). Some corporations transition from high to low levels of compliance, while others become more compliant as they evolve (Kluin et al., 2018; Kluin, Blokland, Huisman, & Peeters, 2025; Meester et al., 2024; Simpson, Layana, & Galvin, 2025). Additionally, a small subset of corporations with persistent offending disproportionately contributes to overall rule violations (Alaheto, 2010; Bartlett, Ransley, Forrester, & Middendorp, 2020; Clinard & Yeager, 1980; Kedia et al., 2017; Kluin et al., 2018, Kluin et al., 2025; Sutherland, 1983), while others maintain consistently high compliance, even going beyond regulatory requirements to mitigate risks (Gunningham, Kagan, & Thornton, 2004).

The application of life-course criminology to corporate offending offers a novel perspective that aligns with our research's focus on the temporal nature of corporate crime. Although openly available data limits precise corporate life-stage identification, it might still be the first research to date that uses such public data to explore corporate life-course criminology, contributing insights into corporate crime patterns and regulatory responses across company life stages. For this article, while Violation Tracker datasets do not track organizations' entire life courses, the life-course perspective is still relevant here due to the insights they provide on longer-term (i.e., not just singular cases or activities) patterns and potential explanations for corporate violations, which can then be theorized and empirically examined further. In this respect, such datasets are important tools in moving beyond case study analysis of white-collar and corporate crimes.

3. Prior research on corporate crime with data of the violation tracker

Soltes (2019) explored different data sets (DOJ, SEC, Stanford securities, Violation Tracker, experimental laboratory research, survey data and internal corporate violation data) when looking into the frequency of corporate misconduct. He highlighted that internal investigations data of several large firms showed that the actual amount of corporate offending is larger than described in public data. But on the other hand, he concluded that even with internal data of several large firms, employees hardly report misconduct. Interesting to note is that Soltes (2019) found under-reporting of offenses in DOJ and SEC data, which indicated according to Burns et al. (2024) that the utility of the Violation Tracker data that includes data from numerous agencies provides a better measure of corporate offending.

Examples of other studies using the Violation Tracker data are Raghunandan (2021) with a focus on wage theft; Shevchenko (2021) on environmental violations and environmental performance; Heese, Pérez-Cavazos, and Peter (2022) on the presence of external monitoring by the press; Neukirchen et al. (2023) on the variety of the enforcement of corporate misconduct under Republican and Democratic administrations; Greenman et al. (2023) on fraud within the pharmaceutical industry and Miller (2024) on the relationship between corporate misconduct and earnings statements.

Li and Raghunandan (2021) used the Violation Tracker to investigate federal labour law violations and institutional ownership. They noted some inconsistencies with what is included in the Violation Tracker database as penalties. Homer and Maume (2024) used the Violation Tracker to explore the potential deterrent effect of federal pretrial agreements by examining the extent of violations after an organization signing a pretrial agreement. They noted that despite their efforts it was possible that they did not find cases due to alternate names of corporations. Another data limitation they encountered was that they found multiple violations for the same activity in the data set, and they had to remove duplicate penalties. The Violation Tracker database was according to Homer and Maume (2024) still a more accurate, comprehensive and easier-to-use database than other sources (for example EPA and OSHA databases). Burns et al. (2024) used the Violation Tracker US in their research on fines of 50 top Fortune 500 corporations. Their study showed that even very successful corporations commit many violations with a mean of 12 violations per year and all companies were recidivists within a five-year period. Regarding the Violation Tracker data Burns et al. (2024) stated that some of the regulatory enforcement agencies are more active than others in regulating corporate behaviour.

4. Financial regulatory systems: The UK and the US

Policymakers aim to curb corporate offending through regulatory policies that limit corporate actions and promote compliance. Regulatory agencies adopt different approaches to enforcement, ranging from compliance-oriented strategies, which encourage adherence through cooperation and persuasion, to deterrence-oriented approaches focused on punishment, sanctions, and monitoring (Ayres & Braithwaite, 1992: May & Winter, 1999; Reiss, 1984). The effectiveness of these strategies often depends on the regulatory context, industry characteristics, and the willingness or ability of regulators to escalate enforcement (Hutter, 1989; Parker & Nielsen, 2009; Benson & Simpson, 2024). Responsive regulation, which advocates a cooperative yet flexible approach to enforcement (Ayres & Braithwaite, 1992: May & Winter, 1999), and risk-based regulation, which focuses resources on high-risk entities (Baldwin & Black, 2016; Black, 2010; Hutter, 2005), represent two key frameworks for fostering compliance while minimizing harm. These regulatory approaches are implemented within broader systems that vary across jurisdictions, shaped by historical, political, and financial contexts. The architecture of regulatory systems, for instance, differs in the level of supervision integration, ranging from sector-specific regulation to cross-sector models based on regulatory functions – and the role of central banks, with more centralized systems enhancing supervisory alignment (Cihak & Podpiera, 2008: Masciandaro & Quintyn, 2016).

Both the UK and the US have fragmented, decentralized systems for regulating financial violations by corporations, but in terms of enforcement actions, the US has shown a more aggressive approach to regulation than the UK (Corruption Watch UK, 2019). In the UK, the former Financial Services Authority (FSA) as well as its successors, the Financial Conduct Authority (FCA) and Prudential Regulation Authority (PRA) under the Bank of England's oversight, align both market integrity

and financial stability goals (FCA, 2024). The Bank of England's role as the central authority ensures close coordination between monetary policy and risk management, fostering cross-sectoral oversight that spans the banking, securities, and insurance sectors (Bank of England, 2024). The FCA also collaborates with agencies like HM Revenue and Customs (HMRC), the Serious Fraud Office (SFO), and the Competition and Markets Authority (CMA) to address tax evasion, fraud, and consumer rights (GOV.UK, 2024a, 2024b; Serious Fraud Office, 2024).

In the US, the Federal Reserve (Fed) oversees systemic risk, while the Office of the Comptroller of the Currency (OCC), Federal Deposit Insurance Corporation (FDIC), and Securities and Exchange Commission (SEC) regulate specific areas like banking and securities (FDIC.gov, 2024; Federal Reserve, 2024; OCC.gov, 2024; SEC.gov, 2024). Despite this fragmented supervision, cross-sectoral coordination occurs on financial crime issues through the Financial Crimes Enforcement Network (FinCEN) within the Treasury, promoting collaboration on overlapping crimes like money laundering (FinCEN.gov, 2024). This dispersed model enables specialized oversight but also relies heavily on agency coordination for effective financial crime management.

This body of literature underscores the complex, evolving nature of corporate offending and the critical role of regulatory systems. Despite limited longitudinal studies, the emergence of open-source databases like the Violation Tracker offers new opportunities to analyse corporate offending over time. By comparing the regulatory systems of the UK and the US and how they impact real-life enforcement actions, our research examines how structural differences impact enforcement approaches to corporate offending.

Building on this foundation, our study systematically examines three key research questions:

1. What patterns of financial regulatory violations emerge over time?
2. How do types of financial regulatory violations vary among financial corporations based on their characteristics?
3. What patterns of regulatory enforcement actions emerge over time, and how does the height of penalties vary among financial corporations based on their characteristics?

By addressing these questions, we aim to deepen the understanding of corporate violation trends and the role of regulatory frameworks in shaping enforcement outcomes.

5. Methods

The data that informs this paper was drawn from two existing databases – the US and UK versions of the Violation Tracker (Violation Tracker, 2024; Violation Tracker UK, 2024). Definitional challenges on corporate offending and data being scattered across multiple organizations (i.e., in the public and private sectors), tend to make analysis of key trends and issues more problematic to achieve (Walburg, 2015). The US and UK versions of the Violation Tracker (hereafter USVT and UKVT respectively) represent the first significant databases that contain information on enforcement actions taken against companies by regulatory enforcement agencies that relate to a range of 'offense/offense groups', broadly including financial, labour, environmental, and consumer-related violations. The Violation Tracker removes violations in which the penalty or settlement is lower than $5000. For completeness, the Violation Tracker complements agency enforcement records with information collected on settlements announced in press releases. The Violation Tracker database includes only corporations that have had a violation throughout the sample period and does not include corporations without violations. On the other hand, the Violation Tracker data set includes a broad range of different types of corporate crime while prior literature (for example Karpoff, Koester, Lee, & Martin, 2017) only considers a specific type of corporate crime.

For this paper, 'financial offenses/offenses' are the central focus within the larger datasets, since the US and UK financial industries are global hubs (City of London Corporation, 2023), making them important facilitators of economic activity, as well as often having a key role in setting regulatory standards that are adopted globally. Therefore, in relation to corporate crimes, these industries provide relevant examples to consider patterns of and inform potential explanations for corporate offending. The analyses focus on the timeframe from 2010 - marking the establishment of the UKVT - until 2023, the most recent year of available data at the time of writing. This period allows for a comprehensive examination of long-term trends in financial violations, capturing the evolution of enforcement practices, regulatory responses, and corporate offending behaviours across both jurisdictions.

The dataset from the UKVT includes data from the Competition and Markets Authority (CMA), the (now defunct) Financial Services Authority (FSA), the Financial Conduct Authority (FCA), HM Revenue and Customs (HMRC), and the Serious Fraud Office (SFO), covering 3046 recorded financial violations between 2010 and 2023. The dataset from the USVT includes data from the Federal Reserve (Fed), the Office of the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation (FDIC), the Consumer Financial Protection Bureau (CFPB), the Securities and Exchange Commission (SEC), the Treasury Department Financial Crimes Enforcement Network (FinCEN), the Internal Revenue Service, (IRS), and the Financial Industry Regulatory Authority (FINRA), with a total of 7693 recorded financial violations during the same period. Both datasets capture the following relevant variables: (A) Company (nominal; name of the violating entity), (B) Current Parent Company (nominal; corporate parent at the time of data collection), (C) Parent at the Time of the Penalty Announcement (nominal; corporate parent at the time of the violation), (D) Ownership Structure of Parent (nominal; private, public, subsidiary, etc.), (E) Penalty Height (continuous; monetary value of fines in local currency), (F) Penalty Year (ordinal; year of enforcement action), (G) Violation Type (nominal; category of regulatory violation), and (H) Agency (nominal; regulatory body issuing the penalty). In some cases, particularly for complex enforcement actions, a single entry in the Violation Tracker may reflect multiple incidents of offending grouped under one resolution or settlement. This is particularly relevant for broad violations such as anti-money laundering deficiencies or investor protection breaches, where enforcement agencies may issue a single penalty covering several infractions. While the Tracker does not always provide disaggregated information on these component violations, we treated each recorded enforcement action as one unit of analysis, in line with the structure of the dataset. This aggregation may slightly obscure variation in the number or nature of individual violations and should be considered when interpreting frequency counts. The distribution of the dependent variables Violation Type and Penalty Height across the full datasets for both the UK and US samples is summarized in Tables 1 and 2. An overview of the count of violations per year in both the UK and the US sample can also be found in Table A of the Supplementary Material.

This quantitative analysis aimed to identify the most recorded

Table 1
Counts of violations per violation type in the UK and US (2010−2023).

Violation Type	UK		US	
	N	%	N	%
Accounting fraud or deficiency	3	0.01	386	5.02
Anti-money laundering deficiency	973	31.94	156	2.03
Banking violation	22	0.72	724	9.41
Fraud	2	0.07	9	0.12
Insider trading	3	0.10	274	3.56
Internal controls deficiency	1	0.03	1	0.01
Investor protection violation	131	4.30	5200	67.59
Mortgage abuse	11	0.36	2	0.03
Payday lending violation	1	0.03	2	0.03
Privacy violation	1	0.03	828	10.76
Tax violation	1898	62.31	111	1.44
Total	3046	100.00	7793	100.00

Table 2
Descriptive statistics of penalty height in the UK and US (2010–2023).

Penalty Height	UK	US
N	2885	5508
Mean	£ 1,065,586.13	$ 30,171,732.52
Median	£ 19,259.00	$ 150,000.00
SD	£ 10,014,952.79	$ 330,381,923.03
Min	£ 0.00	$ 5000.00
Max	£ 292,209,276.00	$ 13,000,000,000.00

regulatory violations, their trends over time, the characteristics of non-compliant companies, as well as enforcement actions and their evolution over time. To address RQ1, the data were descriptively analysed to show trends across various regulatory violations within the UK and US financial industries from 2010 until 2023. This included tracking the frequency and types of regulatory violations over time. Given the significantly larger number of recorded violations in the US dataset compared to the UK dataset, a proportional threshold was applied to ensure meaningful comparisons. For clarity and interpretability, the trend analysis focused on the three most recorded violation types in each jurisdiction. This resulted in the exclusion of violation types with fewer than 50 cases in the UK and fewer than 500 in the US. The use of proportional thresholds ensures that rare violations do not skew trend interpretations while maintaining comparability across jurisdictions. To assess stability in trends, the mean and median values, derived as the mean and median values of the recorded violations between 2010 and 2023, were compared.

To analyse the effects of corporate characteristics, additional variables were collected for sub-samples of companies from the financial industry in each dataset. The analysis focused on 2023, as it was the most recent year with publicly available financial and annual reports at the time of writing. Since many companies only retain the most recent reports on their websites, selecting 2023 maximized data availability on corporate characteristics. The additional variables that were coded from these financial and annual reports included (I) Industry (nominal; industry classification of the company), (J) Specific Sector (nominal; sector classification of the company within in the financial industry), (K) Multinationalism (nominal; binary indicator of whether a company operates internationally), (L) Revenue (continuous; total revenue reported in financial statements), and (M) Net Assets (continuous; difference between total assets and total liabilities). In the UK, the analysis focused on a sub-sample of 13 recorded violations from the financial industry in 2023. Among these, Revenue was missing in 9 cases (69.2 %), while Total Assets, Total Liabilities, and Net Assets were each missing in 1 case (7.7 %). Due to the high proportion of missing data within an already small sample for Revenue, this variable was excluded from further analyses. In the US, the initial dataset contained 342 violations from the financial industry, which were used for the analysis of the variable Sector. However, only 119 of these violations had publicly available annual or financial reports, allowing for the collection of data on Multinationalism, Revenue and Net Assets, and were therefore used in the corresponding analyses. In this sub-sample, Multinationalism was missing in 20 cases (16.8 %), Revenue in 35 cases (39.4 %), and Net Assets in 3 cases (2.5 %). These missing values primarily result from companies not publishing their financial reports for 2023 online. While the UK has a public register of company filings, the US does not, making it more challenging to systematically collect such company data, both for the general public and for research purposes. No imputation or other missing data handling techniques were applied, as the missingness is structurally related to companies' financial reporting practices rather than random data loss. To assess whether missing data were systematically related to sectoral differences, chi-square tests were conducted for the US sample. The results indicated significant variation in missingness across financial sectors for Multinationalism ($X^2(5) = 19.9(5)$, $p = .001$) and Revenue ($X^2(5) = 12.2(5)$, $p = .032$), suggesting that firms in certain sectors were less likely to have publicly available annual or financial reports, potentially introducing bias into the analyses. For Net Assets, these sectoral differences are not statistically significant ($X^2(5) = 10.2$, $p = .069$), indicating that information is more reliably available across sectors of the financial industry. No equivalent tests were conducted for the UK sample due to its small sample size, limiting sectoral comparisons. Full statistical results of these tests are provided in Table B of the Supplementary Material, and contingency tables for these variables are provided in Table C of the Supplementary Material. Descriptive statistics for all variables within each sub-sample are summarized in Table D of the Supplementary Material for all categorical variables and Table E of the Supplementary Material for all continuous variables.

To answer RQ2, corporate characteristics were analysed in relation to violation types. Specifically, descriptive statistics were used to examine how violations were distributed across different sectors of the financial industry, multinational vs domestic firms, and financial indicators such as Revenue (US only) and Net Assets. The analysis highlights the frequency of each violation type within these corporate groupings, providing insights into which types of financial institutions are more frequently associated with certain regulatory breaches. Multinominal logistic regression analyses were conducted to explore possible associations between corporate charcteristics and Violation Type. However, due to small sub-sample size, high levels of missingness in key predictors such as Revenue and Net Assets, and instability in the model estimates (e.g., inflated standard errors, flat odds ratios), the regression results were considered unreliable for robust interpretation. Therefore, the primary focus is on descriptive analyses, with regression outputs reported in the Supplementary Material for transparency. Specifically, results for the UK sample are presented in Table F (with the independent variable Industry) and Table G (for the subsample of the financial industry with the independent variables Specific Sector, Multinationalism, and Net Assets), while results for the US sample are provided in Table H (with the independent variable Industry) and Table I (for the subsample of the financial industry with the independent variables Specific Sector, Multinationalism, and Net Assets). While other studies (e.g., Homer and Maume, 2024) have applied regression to Violation Trakcer data, their analytic focus, data structures and data transformation methods differed. Our decision reflects caution based on the structure and limitations of our particular subsample.

To answer RQ3, univariate analyses of penalties were performed, grouping fines into £100,000 and $100,000 bins respectively to examine frequency distributions. Descriptive longitudinal analyses explored relationships between Penalty Height, Violation Type, and time. Additionally, corporate characteristics were descriptively compared to penalty distributions to assess whether certain types of firms were more frequently subjected to higher fines. These analyses were designed to provide an overview of enforcement trends, without making inferential claims about causality. Exploratory linear regression models were also conducted to assess whether corporate characteristics were associated with Penalty Height. However, similar to RQ2, due to substantial missing data and unstable model estimates these models were not suitable for drawing robust conclusions. Therefore, the results of these exploratory regressions are included in the Supplementary Material for transparency, while the main analysis relies on descriptive methods. Specifically, results for the UK sample are presented in Table J (with the independent variable Industry) and Table K (for the subsample of the financial industry with the independent variables Specific Sector, Multinationalism, and Net Assets), while results for the US sample are provided in Table L (with the independent variable Industry) and Table M (for the subsample of the financial industry with the independent variables Specific Sector, Multinationalism, and Net Assets).

6. Results

When presenting each part of this section, we provide an overview of the UK and US samples, followed by comparison points between the two

industries. We begin by outlining violation trends across both industries, before moving on to consider corporate and industry profiles in relation to regulatory violations, as well as cross-jurisdictional patterns in regulatory enforcement. Finally, we examine how corporate characteristics are associated with penalty distributions.

6.1. Comparative analysis of violation trends

The longitudinal distribution of regulatory violations in the UK and US reveals notable differences in enforcement patterns and the types of violations recorded.

6.1.1. UK sample

In the UK, the most prevalent types of regulatory non-compliance are tax violations ($n = 1898$), anti-money laundering deficiencies ($n = 973$), and investor protection violations ($n = 131$) (Fig. 1a). Other violations, such as securities abuses and economic sanction breaches were recorded less than 50 times (Fig. 2a).

Tax violations show substantial year-to-year fluctuations ($M = 189.8$; $Mdn = 197$), whereas anti-money laundering deficiencies rose sharply starting in 2020 ($M = 74.85$; $Mdn = 6.5$). Investor protection violations, however, remained relatively stable over time ($M = 9.36$; $Mdn = 9$). This can be seen in Fig. 1a. The rise in anti-money laundering

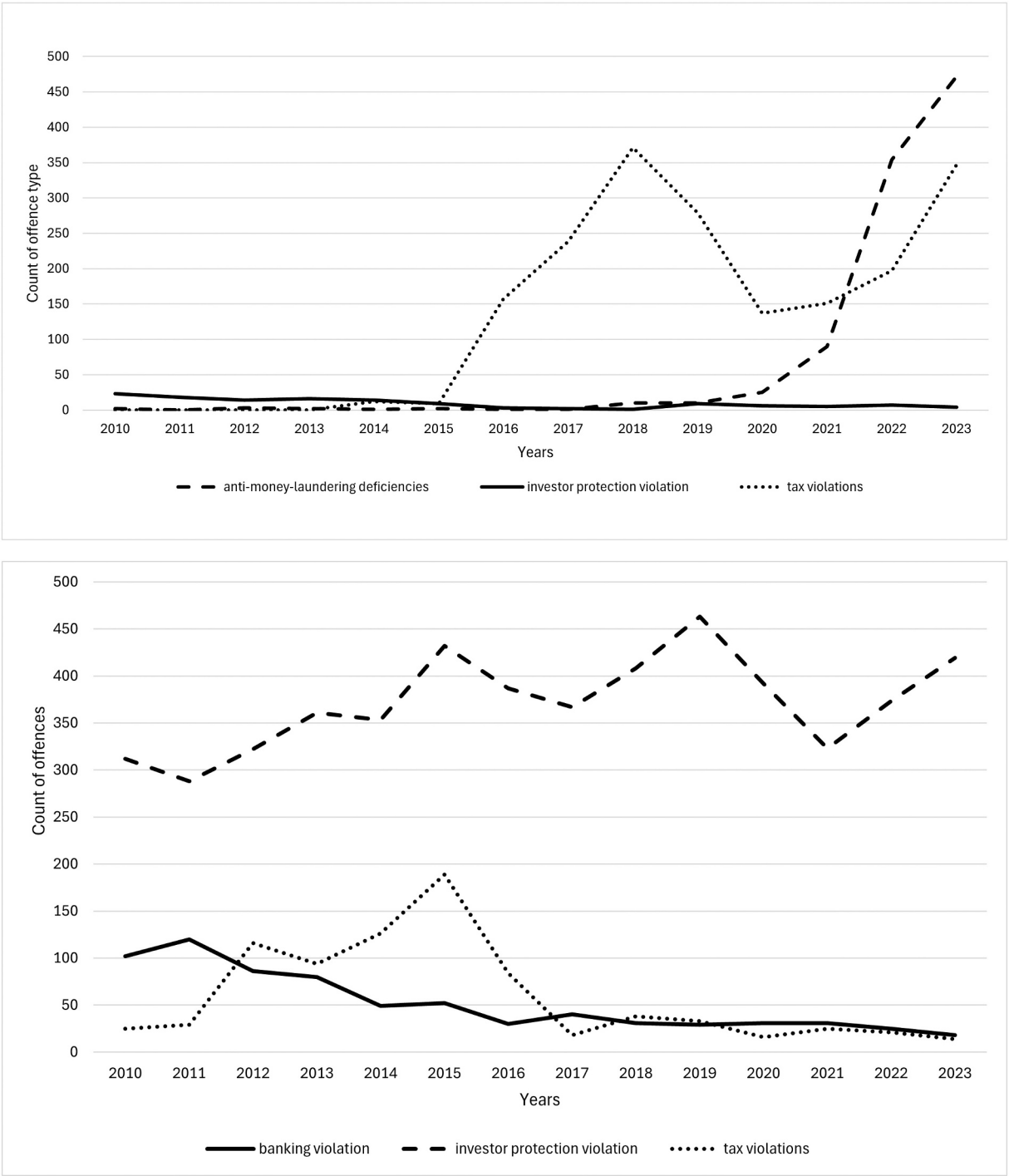

Fig. 1. a. Trends in the three most prevalent types of regulatory violations in the UK (2010–2023). b. Trends in the three most prevalent types of regulatory violations in the US (2010–2023).

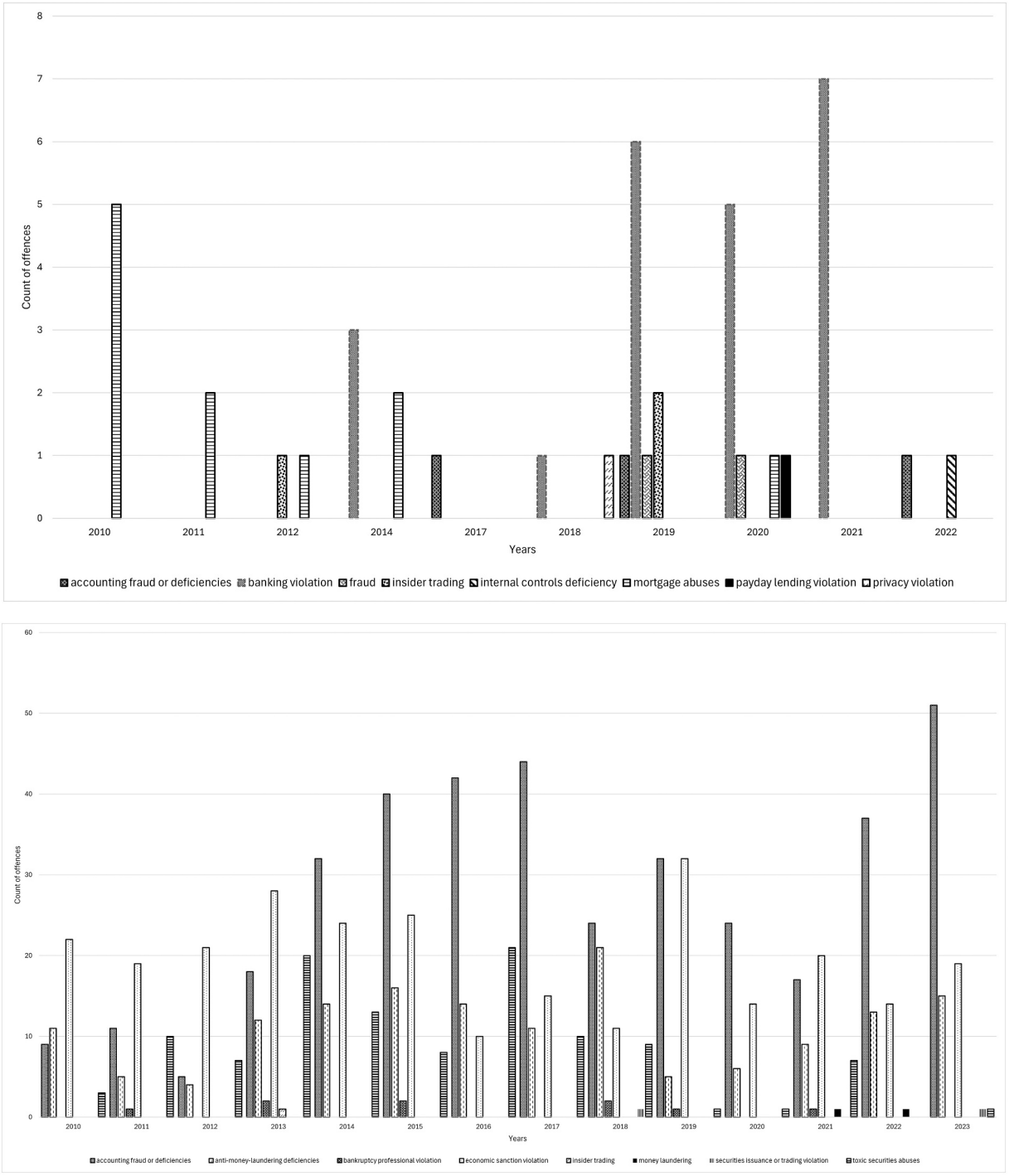

Fig. 2. a. Distribution of regulatory violations recorded below 50 times by type in the UK (2010–2023). b. Distribution of regulatory violations recorded below 500 times by type in the US (2010–2023).

deficiencies in the UK from 2020 interlinks with high-profile cases such as HSBC's compliance failures in relation to the prevention of money laundering, whereby in 2021 the FCA fined HSBC almost £64 million for failings in its anti-money laundering processes (FCA, 2022). Such cases highlight the UK's emphasis on financial integrity and the need to scrutinize large financial institutions. HSBC's penalties (and their responses to them) reflect the UK's ongoing focus on financial services and anti-money laundering enforcement, whereby the financial industry is a key setting for violations and the risk of high penalties.

6.1.2. US sample

In contrast, investor protection violations dominate the US sample, comprising 67.59 % of all violations ($n = 5200$). Tax violations ($n = 828$; 10.76 %) and banking violations ($n = 724$; 9.41 %) are the second and third most prevalent types (Fig. 1b). Violations like economic sanction breaches and toxic securities abuses were recorded less than 500 times as can be seen in Fig. 2b.

Time-trend analysis (Fig. 1b) indicates a relatively stable distribution for investor protection violations ($M = 371.43$; $Mdn = 370$) and minor fluctuations for banking violations ($M = 51.71$; $Mdn = 35.5$), and tax violations ($M = 59.14$; $Mdn = 31$), reflecting consistent enforcement

efforts across these domains. Unlike in the UK, no sudden spikes or declines were observed over the years.

6.1.3. Comparison

The UK and US differ in the types and stability of recorded violations. Tax violations are more prevalent and volatile in the UK, while investor protection violations dominate the US with steady enforcement. Additionally, anti-money laundering deficiencies represent a notable focus in the UK, rising sharply in recent years, whereas they appear less prominent in the US dataset. These differences may reflect jurisdictional priorities, reporting practices, or regulatory frameworks. The identification of investor protection violations as dominant in the US reflects enforcement priorities seen in cases like Danske Bank's involvement in money laundering schemes affecting US markets (US Department of Justice, 2022). While this case also refers to anti-money laundering issues, it reveals the US's fragmented regulatory system that tends to prioritize market stability and consumer protection.

6.2. Industry and corporate profiles in regulatory violations

This section examines how corporate characteristics and industry classifications may affect the likelihood of different types of regulatory violations in the UK and the US within a sample of violations from 2023. An overview of all descriptive statistics analysed and discussed below can be found in Table 3.

6.2.1. UK sample

The analysis of corporate characteristics in relation to regulatory violations in the UK revealed distinct patterns across different violation types. A total of 825 cases were examined, with anti-money laundering deficiencies and tax violations dominating the landscape. Anti-money laundering deficiencies accounted for 419 cases, while tax violations comprised 368 cases. Investor protection violations were comparatively rare, with only four recorded cases.

Examining industry trends (n = 825), anti-money laundering deficiencies were concentrated in 14 out of 44 industries. Real estate (276) cases had the highest number of violations, followed by business services (96 cases), miscellaneous services (39 cases), and retailing (24 cases). The prevalence of anti-money laundering deficiencies in real estate underscores broader regulatory concerns. Cases including that of Mansoor Mahmood Hussain, demonstrate the application of Unexplained Wealth Orders (UWOs) as part of broader anti-money laundering efforts, which are connected to developments with anti-money laundering enforcement in recent years (Campbell & Clancy, 2024). In Hussain's case, the National Crime Agency (NCA) secured UWOs against eight properties owned by him, who was suspected of laundering proceeds from organized crime. In response, Hussain submitted extensive documentation, inadvertently revealing information that strengthened the NCA's case. In 2020, he agreed to an out-of-court settlement, surrendering 45 properties and assets worth nearly £10 million (The Independent, 2020). Tax violations were far more widespread, appearing in 31 out of 44 industries, with particularly high cases in restaurants and food services (109 cases) and construction and engineering (63 cases). Investor protection violations were rare with only four cases in total, one of them in the financial industry, suggesting either better compliance measures or lower enforcement focus in this area.

The financial industry (n = 13) exhibited relatively few recorded violations. Anti-money laundering deficiencies were reported in financial intermediation (5 cases), banking (2 cases), insurance (1 case), and investment (1 case). Investor protection violations were confined to financial intermediation (1 case), while tax violations appeared in financial intermediation (2 cases) and lending services (1 case). Notably, no violations were recorded for crypto companies, potentially reflecting a developing regulatory environment rather than an absence of risk.

Company size and financial strength varied across violation types. Among the nine companies with anti-money laundering deficiencies, three were multinational and two were not, while data was unavailable for several others. The only company with an investor protection violation was multinational, and tax violations were distributed across both multinational and non-multinational firms. Companies involved in investor protection violations had the highest mean net assets (M = £ 43,900,000.00), though this was based on a single case. Companies with tax violations had the lowest mean net assets (M = £ 25,100,000.00, SD = £ 25,500,000.00), suggesting that financial strain may play a role in regulatory compliance with tax regulations. Anti-money laundering violators showed the greatest financial variability (M = £ 28,200,000.00, SD = £ 64,000,000.00), indicating that both larger and smaller firms engage in this type of financial misconduct.

6.2.2. US sample

In the US, regulatory violations exhibited distinct patterns across violation types. A total of 538 cases were analysed, with investor protection violations being the most frequent (419 cases), followed by accounting fraud or deficiencies (51 cases), economic sanction violations (19 cases), banking violations (18 cases), anti-money laundering deficiencies (15 cases), tax violations (14 cases), securities issuance or trading violation (1 case), and toxic securities abuse (1 case).

At the industry level (n = 538), investor protection violations were pervasive, occurring in 29 out of 44 industries. The financial industry (296 cases) had the highest concentration of cases overall, reinforcing its role as a sector vulnerable to breaches of financial regulation. Other industries such as information technology (17 cases), private equity (16 cases), and business services (9 cases) also showed noteworthy levels of investor protection violations. Accounting fraud or deficiencies were present in 8 industries, with business services alone accounting for 42 out of 51 cases, indicating an association between a complex service industry and fraudulent activities. Economic sanctions violations and tax violations were distributed across seven industries but remained relatively low in frequency. Anti-money laundering deficiencies (14 cases) and banking violations (18 cases) were predominantly recorded in the financial industry, reinforcing its dual role as both a high-risk environment and a frequent enforcement target.

At the financial sector level (n = 342), patterns of non-compliance varied. Investor protection violations occurred in all six sectors, with the investment sector recording the most cases (201), followed by banking (46 cases), and crypto (25 cases). Anti-money laundering deficiencies were found in four sectors: banking (8 cases), crypto (4 cases), financial intermediation (1 case), and investment (1 case). Banking regulation breaches were exclusive to the banking sector (18 cases), while economic sanction violations spanned banking (3 cases), crypto (4 cases), financial intermediation (1 case), and insurance (1 case). Other violations – including tax violations, securities issuances or trading violations, and toxic securities abuses – were rare and limited to single cases in the banking sector. These distributions highlight the broad compliance risks across the financial industry, with investment and banking sectors consistently exhibiting the highest numbers.

Further corporate characteristics were available for 119 cases. Within these cases, multinational companies were involved in a substantial number of violations. Of the firms with investor protection violations, 61 out of 91 were multinational, with data for data on 17 cases missing. Similarly, most companies involved in anti-money laundering deficiencies, banking violations, economic sanction violations, and accounting fraud or deficiencies had multinational operations, suggesting that cross-border exposure may increase regulatory scrutiny or risk.

Financial profiles of offending firms varied. Accounting fraud offenders showed the highest average revenue (M = $ 56,100,000,000.00) and net assets (M = $ 118,000,000,000.00), although these figures were based on a single case. Companies involved in economic sanction violations displayed the widest range in both revenue (M = $ 29,700,000,000.00, SD = $ 45,900,000,000.00) and net assets (M = $ 50,000,000,000.00, SD = $ 91,700,000,000.00), while those implicated in anti-money laundering violations had the lowest variability in both

Table 3
Descriptive statistics for violation type across independent variables in the UK and the US (2023).

	UK			US							
	anti-money laundering deficiency	investor protection violation	tax violation	accounting fraud or deficiency	anti-money laundering deficiency	banking violation	economic sanction violation	investor protection violation	Securities issu-ance or trading violation	tax violation	toxic securities abuse
Industry (in counts)											
Agribusiness	2	–	1	–	–	–	–	1	–	–	–
Airlines	–	–	1	–	–	–	–	–	–	–	–
Apparel	–	–	1	–	–	–	–	1	–	–	–
Automotive parts	–	–	1	–	–	–	–	2	–	–	–
Beverages	–	–	2	–	–	–	–	1	–	5	–
Building materials	–	–	–	–	–	–	1	–	–	–	–
Business services	96	–	25	42	–	–	–	9	–	–	–
Chemicals	–	–	2	–	–	–	–	–	–	–	–
Construction and engineering	6	–	63	1	–	–	–	–	–	–	–
Diversified	4	–	6	–	–	–	–	3	–	–	–
Dormant	–	–	3	–	–	–	–	–	–	–	–
Education	–	–	–	–	–	–	–	1	–	–	–
Electrical and electronic equipment	–	–	1	–	–	–	–	5	–	–	–
Entertainment	4	–	2	–	–	–	–	2	–	–	–
Financial	9	1	3	2	14	18	9	296	1	1	1
Banking	2	–	–	1	8	18	3	46	1	1	1
Crypto	–	–	–	–	4	–	4	25	–	–	–
Financial intermediation	5	1	2	–	1	–	1	10	–	–	–
Insurance	1	–	–	–	–	–	1	8	–	–	–
Investment	1	–	–	1	1	–	–	201	–	–	–
Lending services	–	–	1	–	–	–	–	6	–	–	–
Food products	–	–	2	–	–	–	–	–	–	–	–
Freight and logistics	–	–	14	–	–	–	1	3	–	1	–
Healthcare services	–	1	4	–	–	–	–	3	–	–	–
Heavy equipment	–	–	–	–	–	–	–	2	–	1	–
Household and personal care products	–	–	–	–	–	–	1	–	–	–	–
Hotels	–	–	3	–	–	–	–	–	–	–	–
Housewares and home furnishings	–	–	2	1	–	–	–	–	–	–	–
Industrial services	–	–	1	–	–	–	–	–	–	–	–
Information services	–	–	1	–	–	–	–	4	–	–	–
Information technology	1	–	8	1	–	–	3	17	–	–	–
Media	1	–	2	–	–	–	–	7	–	1	–
Medical equipment and supplies	–	–	–	–	–	–	–	3	–	–	–
Metals	–	–	–	–	–	–	–	2	–	–	–
Mining and minerals	–	–	–	1	–	–	–	1	–	–	–
Miscellaneous energy products and systems	–	–	–	–	–	–	–	8	–	–	–
Miscellaneous manufacturing	–	–	–	–	–	–	1	–	–	–	–

(*continued on next page*)

Table 3 (*continued*)

	UK			US							
	anti-money laundering deficiency	investor protection violation	tax violation	accounting fraud or deficiency	anti-money laundering deficiency	banking violation	economic sanction violation	investor protection violation	Securities issu-ance or trading violation	tax violation	toxic securities abuse
Miscellaneous services	39	1	32	2	–	–	–	7	–	1	–
Motor vehicles	2	–	6	–	–	–	–	1	–	1	–
Oil and gas	–	–	–	–	–	–	–	6	–	–	–
Pharmaceuticals	–	–	1	–	–	–	–	2	–	–	–
Private equity	–	–	–	–	1	–	–	16	–	–	–
Real estate	276	1	9	–	–	–	–	11	–	2	–
Restaurants and food services	1	–	109	–	–	–	–	2	–	1	–
Retailing	24	–	25	–	–	–	–	–	–	–	–
Telecommunications	–	–	–	1	–	–	–	–	–	–	–
Tobacco	–	–	–	–	–	–	3	–	–	–	–
Utilities and power generation	–	–	1	–	–	–	–	2	–	–	–
Waste management and environmental services	–	–	1	–	–	–	–	–	–	–	–
Wholesalers	7	–	15	–	–	–	–	1	–	–	–
Multinationalism (Financial industry sample only; in counts)											
Yes	3	1	1	1	7	7	4	61	–	1	1
No	2	0	1	–	–	4	–	13	–	–	–
N.A.	4	0	1	–	1	–	–	17	–	–	–
Revenue (Financial industry sample only)											
N				1	6	6	3	66	–	1	1
Missing				–	2	7	1	25	–	–	–
Mean				$ 56,100,000,000.00	$ 5,350,000,000.00	$ 39,800,000,000.00	$ 29,700,000,000.00	$ 24,600,000,000.00	–	$ 3,760,000,000.00	$ 33,700,000,000.00
Median				$ 56,100,000,000.00	$ 43,600,000.00	$ 33,700,000,000.00	$ 6,060,000,000.00	$ 9,380,000,000.00	–	$ 3,760,000,000.00	$ 33,700,000,000.00
SD				NaN	$ 11,600,000,000.00	$ 28,500,000,000.00	$ 45,900,000,000.00	$ 33,900,000,000.00	–	NaN	NaN
Min				$ 56,100,000,000.00	$ 9,900,000.00	$ 77,300,000.00	$ 453,000,000.00	$ 0.00	–	$ 3,760,000,000.00	$ 33,700,000,000.00
Max				$ 56,100,000,000.00	$ 28,900,000,000.00	$ 82,600,000,000.00	$ 82,600,000,000.00	$ 158,000,000,000.00	–	$ 3,760,000,000.00	$ 33,700,000,000.00
Net Assets (Financial industry sample only)											
N	9	1	2	1	8	12	4	89	–	1	1
Missing	–	–	1	–	–	1	–	2	–	–	–
Mean	£ 28,200,000.00	£ 43,900,000.00	£ 25,100,000.00	$ 118,000,000,000.00	$ 11,400,000,000.00	$ 49,500,000,000.00	$ 50,000,000,000.00	$ 43,900,000,000.00	–	$ 4,880,000,000.00	$ 55,600,000,000.00
Median	£ 295,721.00	£ 43,900,000.00	£ 25,100,000.00	$ 118,000,000,000.00	$ 3,470,000,000.00	$ 22,800,000,000.00	$ 6,020,000,000.00	$ 5,280,000,000.00	–	$ 4,880,000,000.00	$ 55,600,000,000.00
SD	£ 64,000,000.00	NaN	£ 35,500,000.00	NaN	$ 21,700,000,000.00	$ 68,200,000,000.00	$ 91,700,000,000.00	$ 74,800,000,000.00	–	NaN	NaN
Min	£ 23,580.00	£ 43,900,000.00	£ 13,580.00	$ 118,000,000,000.00	$ 314,000,000.00	$ 121,000,000.00	$ 661,000,000.00	$ -5,466,437.00	–	$ 4,880,000,000.00	$ 55,600,000,000.00
Max	£ 195,138,000.00	£ 43,900,000.00	£ 50,205,000.00	$ 118,000,000,000.00	$ 64,000,000,000.00	$ 187,000,000,000.00	$ 187,000,000,000.00	$ 328,000,000,000.00	–	$ 4,880,000,000.00	$ 55,600,000,000.00

Note. The categorical variables Industry, Sector (within financial industry), and Multinationalism (Financial industry sample only) are reported as counts for each violation type. The numerical variables Revenue and Net Assets are reported with sample size (N), missing values, mean, median, standard deviation (SD), minimum, and maximum. NaN indicates that the estimate could not be calculated due to insufficient data.

revenue (M = $ 5,350,000,000.00, SD = $ 11,600,000,000.00) and net assets (M = $ 11,400,000,000.00, SD = $ 21,700,000,000.00), suggesting differences in enforcement or reporting across violations types.

6.2.3. Comparison

The patterns of corporate violations in the UK and the US reveal both commonalities and notable differences. Financial non-compliance is a major concern in both jurisdictions, but the specific focus of regulatory enforcement varies. In the UK, anti-money laundering deficiencies and tax violations were particularly prevalent, while the US saw a dominant presence of investor protection violations. This reflects differences in regulatory priorities, with the UK more focused on combating money laundering and tax evasion, and the US emphasizing market integrity and investor safeguards.

Industry-wide, the financial industry emerged as more frequently penalized in the US than in the UK. The UK's real estate and business service industries showed a high level of anti-money laundering deficiencies, while the US financial and business service industries were more prone to investor protection and accounting fraud violations. Tax violations were more frequent and dispersed across UK industries, whereas they remained relatively contained in the US.

At the sectoral level, financial intermediation was highlighted as particularly exposed to various forms of violations across both jurisdictions. In a wider context, the Deutsche Bank case related to these insights in investor protection violations in the US, as well as anti-money laundering issues in the UK (US Department of Justice, 2021). This case highlights the cross-jurisdictional challenges of enforcement and supports the idea that financial intermediation is a high-risk sector for violations, albeit there can be challenges in detecting such non-compliant processes due to complex structures that limit the amount and quality of oversight.

Across both countries, the involvement of multinational corporations was pronounced in more severe or complex violation types. However, the small sample sizes in the sub-sample analyses limit the strength of these conclusions. Similarly, financial indicators such as revenue and net assets showed some variation by violation type but did not present a clear pattern, emphasizing the descriptive nature of the current analysis.

6.3. Cross-jurisdictional patterns in regulatory enforcement

This section explores the distribution of penalties over time and investigates associations between corporate characteristics and penalty height in the UK and the US.

6.3.1. Frequency and severity of penalties

6.3.1.1. UK sample. Penalties ranged from £0 to £292,209,276, with a median of £29,259. Most penalties (78.20 %) were below £100,000, and 94.45 % were under £1,000,000. Smaller penalties rose in frequency between 2015 and 2019, as illustrated in Fig. 3a, suggesting a trend towards more frequent enforcement in minor infractions in that period. However, no consistent trends emerged for higher penalties across the timeframe. Fig. 4a demonstrates that anti-money laundering deficiencies and tax violations accounted for the highest fines, reflecting regulatory priorities and the severity attributed to these types of offenses.

6.3.1.2. US sample. Penalty amounts spanned from $5000 to $13,000,000,000, with a median of $150,000. Nearly half (44.56 %) of penalties were below $100,000. Unlike the UK, no clear trends emerged over time, suggesting a more stable patterns of enforcement over time. Investor protection violations were the most financially penalized type, contributing significantly to the overall monetary enforcement landscape, as can be seen in Fig. 4b. However, Fig. 3b illustrates that penalties were heavily concentrated below £100,000, particularly for investor protection violations, while violations such as accounting fraud and fraud incurred higher penalties less frequently.

6.3.1.3. Comparison. Both jurisdictions penalized a broad spectrum of financial offenses, but the distribution and scale of penalties reflect divergent regulatory priorities. In the UK, enforcement intensified for lower-level violations in recent years, especially within tax and anti-money laundering domains. Larger penalties were rarer and typically linked to serious violations, with some years showing distinct spikes tied to major cases. In contrast, the US maintained a more consistent enforcement pattern over time. Investor protection violations dominated the penalty landscape, both in frequency and financial magnitude. The wide penalty range, including several multi-billion-dollar fines, highlights the scale of misconduct targeted by US authorities.

These trends underscore how national regulatory systems prioritize risk differently: the UK emphasized anti-money laundering and tax compliance, while the US focuses more on safeguarding investor confidence. Together, they illustrate how enforcement strategies are shaped by institutional context and perceived systemic vulnerabilities.

6.3.2. Corporate characteristics and penalty distributions

6.3.2.1. UK sample. In the UK (n = 825), penalty amounts varied substantially across industries. Diversified companies received the highest penalties on average (M = £ 165,000,000.00, SD = £ 5,080,000.00), albeit only across 10 cases. The financial industry followed with the second-highest mean penalty across 13 cases (M = £ 4,050,000.00, SD = £ 7,720,000.00), indicating the industry's exposure to higher regulatory scrutiny. Other industries with high average penalties included agribusiness (M = £ 2,160,000.00, SD = £ 3,730,000.00) and pharmaceuticals (M = £ 1,712,097.00), even though there were only a few cases in both industries – 3 and 1 case respectively. In contrast, the real estate industry recorded the lowest penalty on average (M = £ 9010.00, SD = £ 20,323.00), despite accounting for the largest number of violations with 286 cases, suggesting a focus on volume over severity.

Within the financial industry sectors (n = 13), banks received the highest average penalties (M = £ 5,850,000.00, SD = £ 2,580,000.00), followed closely by financial intermediation firms (M = £ 5,110,000.00, SD = £ 9,600,000.00), both of which also exhibited the high variation in penalty amounts. The investment sector received the lowest penalties, with a single penalty of just £ 2150. Furthermore, no clear trends could be identified regarding the association between company size and financial standing with the penalty height respectively in the financial industry. Regarding Multinationalism, non-multinational companies faced higher average penalties (M = £ 9,640,000.00, SD = £ 6,810,000.00) than multinational ones (M = £ 4,730,000.00, SD = £ 10,600,00.00). However, this finding is based on a very small number of observations and should be interpreted cautiously. No clear relationship emerged between net assets and the height of penalties, as the correlation was not statistically significant ($r(10) = 0.30$, $p = .350$).

Detailed descriptive statistics for these analyses can be found in Table 4.

6.3.2.2. US sample. In the US (n = 538), the tobacco industry had the highest penalty (M = $ 212,000,000.00, SD = $ 362,000,000.00), although given for a single case. The metals with 2 cases (M = $ 74,600,000.00, SD = $ 101,000,000.00), mining and minerals with 2 cases (M = $ 42,000,000.00, SD = $ 19,700,000.00), and telecommunications industry with 1 case (M = $ 25,000,000.00) also received high fines, albeit across few cases. Furthermore, the financial industry also stood out with a high average penalty (M = $ 49,900,000.00, SD = $ 354,000,000.00) across a large sample of 342 cases, reinforcing its systemic importance and exposure to regulatory enforcement. In contrast, sectors like apparel with 1 case (M = $ 25,000.00), agribusiness with 1 case (M = $ 50,000.00), and healthcare services with 3 cases

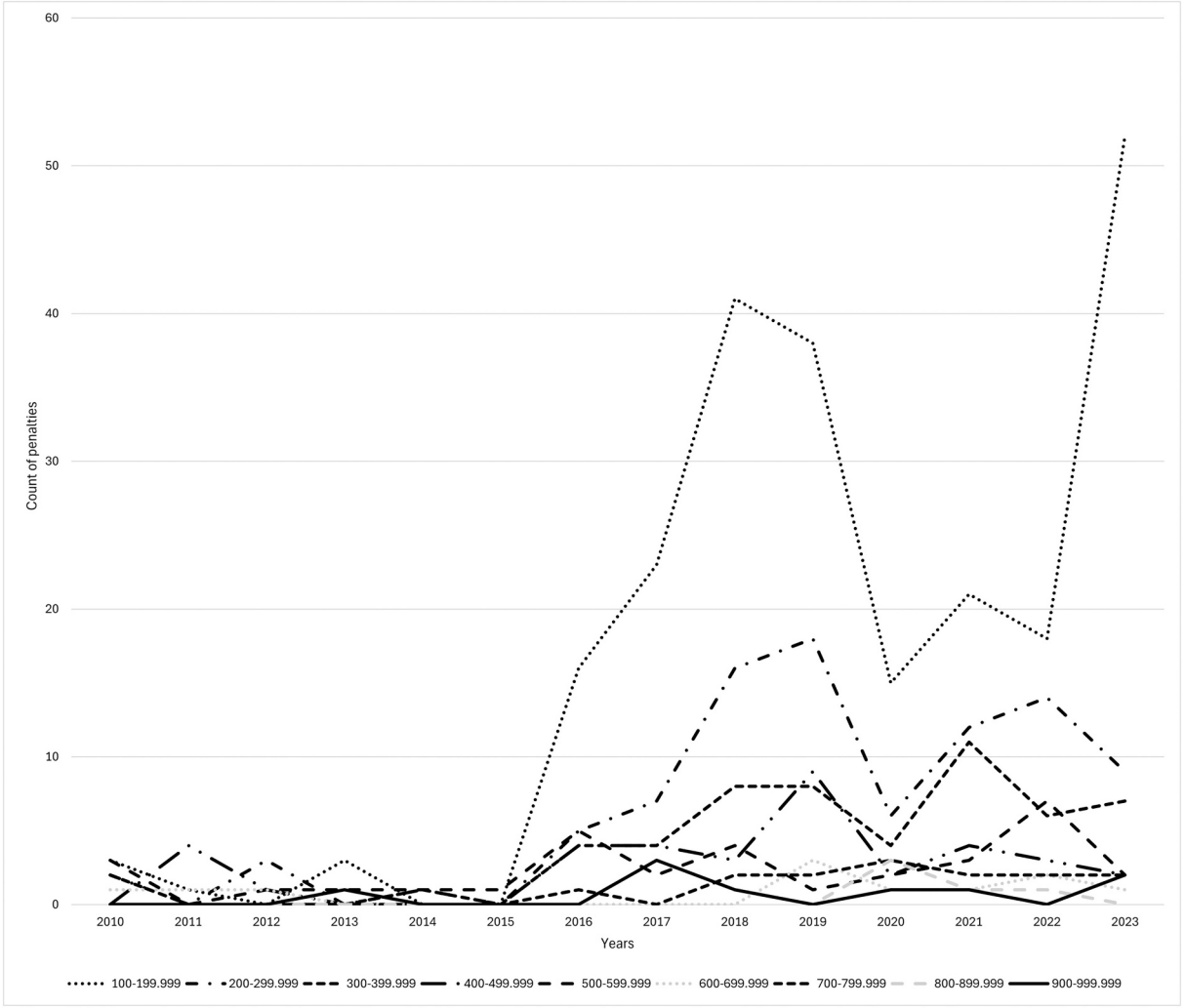

Fig. 3. a. Trends in penalty distribution in the UK (2010–2023). b. Trends in penalty distribution in the US (2010–2023).

(M = $ 59,417.00, SD = $ 35.387.00) received comparatively modest penalties.

Looking at financial sectors (n = 342), companies in the crypto sector had the highest average penalties (M = $ 393,000,000.00, SD = $ 1,050,000,000.00), alongside a substantial variation in penalty amounts across 34 cases. The banking sector followed with a high penalty on average across 78 cases (M = $ 40,000,000.00, SD = $ 165,000,000.00), while the insurance sector reported the lowest mean penalties across 9 cases (M = $ 656,522.00, SD = $ 1,640,000.00). These findings suggest that newer and less regulated areas such as crypto may attract particularly high penalties when enforcement does occur.

Regarding the sub-sample of financial corporations (n = 119), multinational firms received higher average penalties (M = $ 38,200,000.00, SD = $ 161,000,000.00) than non-multinational ones (M = $ 3,020,000.00, SD = $ 4,800,000.00), indicating that larger and more internally active corporations may be subject to more severe enforcement actions. However, there was no statistically significant correlation between penalty height and either revenue ($r(82) = 0.06$, $p = .560$) or net assets ($r(114) = 0.06$, $p = .490$), suggesting these financial indicators alone are not strongly associated with the severity of penalties.

Detailed descriptive statistics for these analyses can be found in Table 4.

6.3.2.3. Comparison. Across both jurisdictions, penalties were notably higher in industries and sectors with complex financial operations and greater systemic relevance. In the UK, the financial industry – particularly the banking and the financial intermediation sector – was consistently associated with higher penalties, reflecting its regulatory prominence. Findings related to multinational companies were mixed across jurisdictions. In the US, multinational corporations received considerably higher penalties on average, consistent with their scale and transnational exposure. In contrast, the UK sample showed higher penalties for non-multinational companies, although the limited number of cases makes this result less conclusive. Notably, in both countries, traditional financial indicators like revenue and net assets did not show a strong association with penalty height.

7. Discussion and conclusion

This study set out to examine patterns of financial regulatory violations and enforcement across the UK and US, using publicly available data from the Violation Tracker. Our aim was twofold: first, to explore industry- and corporate-level dynamics of financial corporate crime over time; and second, to assess whether Violation Tracker data are empirically suitable for investigating complex questions in corporate criminology, particularly those grounded in life-course theory. The findings suggest that while descriptive insights can be drawn from the data,

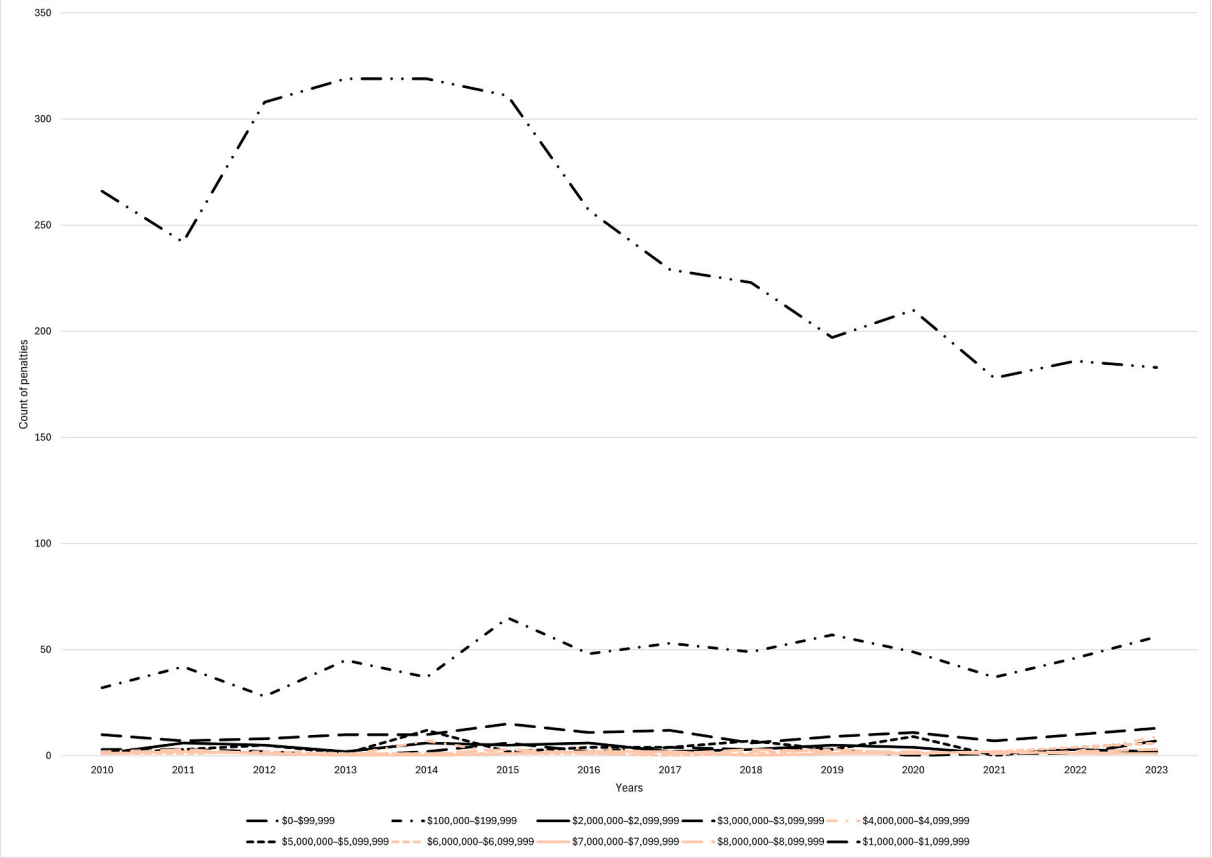

Fig. 3. (*continued*).

substantial limitations such as uneven reporting restrict the robustness of more advanced statistical modelling in this context. As a result, descriptive methods provided the most reliable approach for the ressearch questions at hand.

In terms of jurisdictional trends, the data revealed distinct differences between the UK and the US. In the UK, anti-money laundering deficiencies and tax violations are more prominent, with a notable increase in anti-money laundering deficiencies since 2020. In contrast, investor protection violations were most common in the US, accounting for the majority of regulatory action, suggesting regulatory priorities linked to market stability and consumer protection. These differences highlight how regulatory frameworks and enforcement priorities shape corporate offending. This comparative approach expands on prior research with the Violation Tracker data that has focused on different forms of corporate misconduct, such as environmental violations (Shevchenko, 2021) or the pharmaceutical industry (Greenman et al., 2023). Additionally, these findings resonate with life-course criminology, since the Violation Tracker data are not intended to account for the full life-course of corporations, they do provide important insights about the nature and types of corporate offending and sanctions over a sustained period and across jurisdictions. This is an important step that provides a basis for corporate crime research to move beyond examinations of singular cases, whereby our findings reveal sectoral vulnerabilities in different fields that require tailored enforcement approaches. Descriptive analyses of industry-level patterns show that certain industries were consistently associated with higher volumes of violations. Some industries might be more criminogenic than others (Alaheto, 2010; Bartlett et al., 2020; Huisman, 2016). In the UK, anti-money laundering deficiencies were heavily concentrated in industries such as real estate and business services, while tax violations spanned a broader range of industries but were most common in construction, restaurants, and miscellaneous services. In the US, investor protection violations were recorded in 29 out of 44 industries but were most prevalent in financial, business services, and information technology. At the level of the financial industry, all six sectors in the US recorded investor protection violations, while anti-money laundering and banking violations were concentrated in banking, crypto, and financial intermediation. In the UK, most financial violations were limited to financial intermediation, with little sectoral variation due to the small sample size.

Corporate characteristics showed inconsistent associations with violation types. In both jurisdictions, violations occurred across both multinational and non-multinational corporations, with no clear patterns that would support the predictive use of this variable. This contrasts with earlier research that emphasized the compliance challenges of multinational companies (Parker & Nielsen, 2009). While past literature also suggests that larger firms – due to their complex structures and dispersed accountability (Prechel & Zheng, 2016) – may be more prone to offending (Baucus & Near, 1991; Dalton & Kesner, 1988; Kedia et al., 2017; Orudzheva, Salimath, & Pavur, 2020; Prechel & Morris, 2010; Prechel & Zheng, 2016; Simpson & Koper, 1997), we found no consistent association between company size and financial standing (as measured by revenue and net assets) and violation type. These findings build on other analyses using Violation Tracker data. For instance, Burns et al. (2024) emphasize high recidivism rates among financially successful firms, while Homer and Maume (2024) demonstrate the limited effectiveness of pre-trial agreements in deterring repeat violations, particularly in large organizations. While Li and Raghunandan (2021) show that institutional ownership mitigates labour law violations through financial monitoring and incentive structures. However, our results suggest that multinationalism does not consistently associate with different types of financial violations, and financial metrics such as revenue and net assets are not reliable indicators of non-compliance. This divergence reinforced the need to approach analyses of corporate

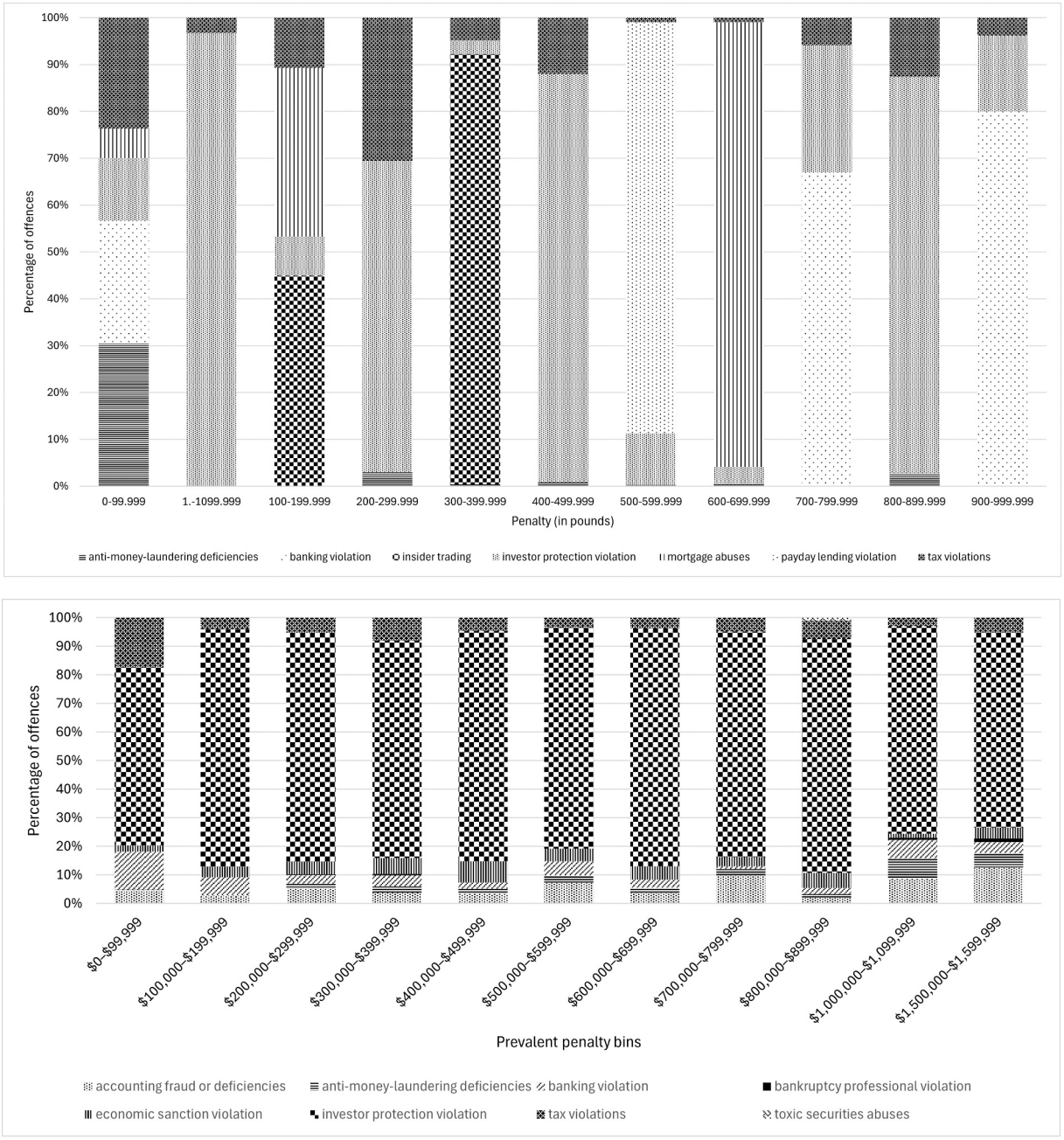

Fig. 4. a. Penalty distribution by violation type in the UK (2010–2023). b. Penalty distribution by violation type in the US (2010–2023).

characteristics and non-compliance with caution, particularly when working with incomplete or uneven datasets.

Patterns in penalty structures further underscore jurisdictional differences in regulatory enforcement. In the UK, high penalties were highly concentrated in the financial industry, especially banking and financial intermediation, echoing Masciandaro and Quintyn's (2016) observations on the UK's more targeted approach to high-risk sectors. At the same time, industries like real estate, despite accounting for the majority of recorded violations, received the lowest average penalties, suggesting an enforcement strategy emphasizing breadth over depth – potentially at the cost of deterrence. In contrast, the US demonstrates more broadly distributed high penalties across industries and displayed greater financial scale, particularly in newer or complex areas such as cryptocurrency. This aligns with Baldwin and Black's (2016) critique that fragmented systems can lead to uneven regulatory emphasis. The differences between the two jurisdictions are also consistent with the discussion initiated by Soltes (2019), who revealed that public enforcement records of single authorities vastly underestimate the full scope of corporate offending. Across both jurisdictions, corporate-level characteristics like revenue and net assets were not associated with penalty height. These findings challenge assumptions from earlier research that larger or wealthier firms are penalized more severely due to their systemic importance or capacity to absorb risk (Simpson & Koper, 1992; Kedia et al., 2017). Similarly, while Parker and Nielsen (2009) highlight the compliance burdens of multinational firms, our results were mixed: in the US, multinationals received higher penalties, whereas in the UK, the opposite was observed — though based on very limited data. Overall, these patterns suggest that regulators may respond to perceived industry- and sector-related risks rather than to firm-specific characteristics. Yet, the absence of strong or consistent relationships between financial indicators and penalties also reflects the limits of the available data. As with the analyses on violation types,

Table 4
Descriptive statistics for penalty height across independent variables in the UK and the US (2023).

	N	UK					N	US				
		Mean	Median	SD	Min	Max		Mean	Median	SD	Min	Max
Industry												
Agribusiness	3	£ 2,160,000.00	£ 14,891.00	£ 3,730,000.00	£ 7000.00	£ 6,470,600.00	1	$ 50,000.00	$ 50,000.00	NaN	$ 50,000.00	$ 50,000.00
Airlines	1	£ 39,467.00	£ 39,467.01	NaN	£ 39,467.00	£ 39,467.01	–	–	–	–	–	–
Apparel	1	£ 52,252.00	£ 52,252.01	NaN	£ 52,252.00	£ 52,252.01	1	$ 25,000.00	$ 25,000.00	NaN	$ 25,000.00	$ 25,000.00
Automotive parts	1	£ 66,911.00	£ 66,911.01	NaN	£ 66,911.00	£ 66,911.01	2	$ 2,060,000.00	$ 2,060,000.00	$ 2750,000.00	$ 116,264.00	$ 4,000,000.00
Beverages	2	£ 42,541.00	£ 42,541.00	£ 38,375.00	£ 15,406.00	£ 69,676.00	6	$ 179,152.00	$ 119,241.00	$ 168,866.00	$ 12,000.00	$ 419,431.00
Building materials	–	–	–	–	–	–	1	$ 660,954.00	$ 660,954.00	NaN	$ 660,954.00	$ 660,954.00
Business services	121	£ 95,956.00	£ 3970.00	£ 355,419.00	£ 1250.00	£ 2,546,508.00	51	$ 911,220.00	$ 60,000.00	$ 2,170,000.00	$ 20,000.00	$ 10,000,000.00
Chemicals	2	£ 777,553.00	£ 777,553.00	£ 885,330.00	£ 151,530.00	£ 1,403,576.00	–	–	–	–	–	–
Construction and engineering	69	£ 177,782.00	£ 41,019.00	£ 564,760.00	£ 2750.00	£ 4,225,950.00	1	$ 14,500,000.00	$ 14,500,000.00	NaN	$ 14,500,000.00	$ 14,500,000.00
Diversified	10	£ 165,000,000.00	£ 39,607.00	£ 5,080,000.00	£ 1450.00	£ 16,102,000.00	3	$ 3,570,000.00	$ 1,000,000.00	$ 4,710,000.00	$ 700,000.00	$ 9,000,000.00
Dormant	3	£ 94,764.00	£ 91,074.00	£ 26,736.00	£ 70,065.00	£ 123,154.00	–	–	–	–	–	–
Education	–	–	–	–	–	–	1	$ 1250,000.00	$ 1250,000.00	NaN	$ 1250,000.00	$ 1250,000.00
Electrical and electronic equipment	1	£ 75,959.00	£ 75,959.01	NaN	£ 75,959.00	£ 75,959.01	5	$ 439,639.00	$ 190,000.00	$ 424,509.00	$ 60,000.00	$ 1,050,000.00
Entertainment	6	£ 27,515.00	£ 16,900.00	£ 30,070.00	£ 1162.00	£ 86,296.00	2	$ 14,300,000.00	$ 14,300,000.00	$ 20,200,000.00	$ 40,000.00	$ 28,600,000.00
Financial	13	£ 4,050,000.00	£ 23,400.00	£ 7,720,000.00	£ 2150.00	£ 23,610,000.00	342	$ 49,900,000.00	$ 348,400.00	$ 354,000,000.00	$ 5000.00	$ 4,320,000,000.00
Banking	2	£ 5,850,000.00	£ 5,850,000.00	£ 2,580,000.00	£ 4,023,600.00	£ 7,671,800.00	78	$ 40,000,000.00	$ 7,750,000.00	$ 165,000,000.00	$ 5000.00	$ 1,440,000,000.00
Crypto	–	–	–	–	–	–	34	$ 393,000,000.00	$ 2,610,000.00	$ 1,050,000,000.00	$ 10,000.00	$ 4,320,000,000.00
Financial intermediation	8	£ 5,110,000.00	£ 13,950.00	£ 9,600,000.00	£ 2750.00	£ 23,610,000.00	12	$ 4,390,000.00	$ 2,000,000.00	$ 5,530,000.00	$ 5000.00	$ 17,000,000.00
Insurance	1	£ 4500.00	£ 4500.00	NaN	£ 4500.00	£ 4500.00	9	$ 656,522.00	$ 35,000.00	$ 1,640,000.00	$ 7500.00	$ 5000,000.00
Investment	1	£ 2150.00	£ 2150.00	NaN	£ 2150.00	£ 2150.00	203	$ 2,450,000.00	$ 122,271.00	$ 8,820,000.00	$ 5000.00	$ 102,000,000.00
Lending services	1	£ 43,569.00	£ 43,569.00	NaN	£ 43,569.00	£ 43,569.00	6	$ 4,590,000.00	$ 20,000.00	$ 11,200,000.00	$ 5000.00	$ 27,400,000.00
Food products	2	£ 158,449.00	£ 158,449.00	£ 133,652.00	£ 63,943.00	£ 252,955.00	–	–	–	–	–	–
Freight and logistics	14	£ 153,122.00	£ 60,962.00	£ 295,148.00	£ 14,540.00	£ 1,156,778.00	5	$ 2,510,000.00	$ 300,000.00	$ 4,110,000.00	$ 50,000.00	$ 9,640,000.00
Healthcare services	5	£ 89,742.00	£ 59,001.00	£ 81,566.00	£ 0.00	£ 181,559.00	3	$ 59,417.00	$ 43,250.00	$ 35,387.00	$ 35,000.00	$ 100,000.00
Heavy equipment	–	–	–	–	–	–	3	$ 368,176.00	$ 60,000.00	$ 547,231.00	$ 44,527.00	$ 1,000,000.00
Household and personal care products	–	–	–	–	–	–	1	$ 3,510,000.00	$ 3,510,000.00	NaN	$ 3,510,000.00	$ 3,510,000.00
Hotels	3	£ 37,439.00	£ 33,590.00	£ 27,593.00	£ 11,972.00	£ 66,754.00	–	–	–	–	–	–
Housewares and home furnishings	2	£ 116,341.00	£ 116,341.00	£ 17,335.00	£ 104,083.00	£ 128,598.00	1	$ 12,500,000.00	$ 12,500,000.00	NaN	$ 12,500,000.00	$ 12,500,000.00
Industrial services	1	£ 132,299.00	£ 132,299.00	NaN	£ 132,299.00	£ 132,299.00	–	–	–	–	–	–
Information services	1	£ 38,840.00	£ 38,840.00	NaN	£ 38,840.00	£ 38,840.00	4	$ 2,520,000.00	$ 2,040,000.00	$ 2,970,000.00	$ 10,000.00	$ 6,000,000.00
Information technology	9	£ 88,955.00	£ 37,940.00	£ 118,275.00	£ 2750.00	£ 375,677.00	21	$ 5,800,000.00	$ 1,000,000.00	$ 13,200,000.00	$ 8500.00	$ 53,300,000.00
Media	3	£ 36,186.00	£ 46,935.00	£ 30,897.00	£ 1350.00	£ 60,273.00	8	$ 1,380,000.00	$ 474,286.00	$ 2,050,000.00	$ 10,000.00	$ 6,100,000.00
Medical equipment and supplies	–	–	–	–	–	–	3	$ 466,667.00	$ 500,000.00	$ 202,073.00	$ 250,000.00	$ 650,000.00
Metals	–	–	–	–	–	–	2	$ 74,600,000.00	$ 74,600,000.00	$ 101,000,000.00	$ 3,440,000.00	$ 146,000,000.00
Mining and minerals	–	–	–	–	–	–	2	$ 42,000,000.00	$ 42,000,000.00	$ 19,700,000.00	$ 28,000,000.00	$ 55,900,000.00

(*continued on next page*)

Table 4 (*continued*)

	N	UK					N	US				
		Mean	Median	SD	Min	Max		Mean	Median	SD	Min	Max
Miscellaneous energy products and systems	–	–	–	–	–	–	8	$ 14,500,000.00	$ 2,780,000.00	$ 31,200,000.00	$ 5000.00	$ 91,000,000.00
Miscellaneous manufacturing	–	–	–	–	–	–	1	$ 9,620,000.00	$ 9,620,000.00	NaN	$ 9,620,000.00	$ 9,620,000.00
Miscellaneous services	72	£ 77,089.00	£ 14,500.00	£ 299,568.00	£ 1250.00	£ 2,452,700.00	10	$ 3,740,000.00	$ 96,796.00	$ 6,300,000.00	$ 17,400.00	$ 18,000,000.00
Motor vehicles	8	£ 38,473.00	£ 25,200.00	£ 34,105.00	£ 1250.00	£ 104,577.00	2	$ 1,640,000.00	$ 1,640,000.00	$ 195,753.00	$ 1,500,000.00	$ 1,780,000.00
Oil and gas	–	–	–	–	–	–	6	$ 7,950,000.00	$ 970,000.00	$ 16,200,000.00	$ 5000.00	$ 40,700,000.00
Pharmaceuticals	1	£ 1,712,097.00	£ 1,712,097.01	NaN	£ 1,712,097.00	£ 1,712,097.01	2	$ 328,250.00	$ 328,250.00	$ 181,373.00	$ 200,000.00	$ 456,500.00
Private equity	–	–	–	–	–	–	17	$ 2,810,000.00	$ 668,240.00	$ 5,160,000.00	$ 5000.00	$ 20,500,000.00
Real estate	286	£ 9010.00	£ 4500.00	£ 20,323.00	£ 1250.00	£ 269,522.00	13	$ 2,130,000.00	$ 774,331.00	$ 4,540,000.00	$ 10,000.00	$ 15,800,000.00
Restaurants and food services	110	£ 62,099.00	£ 40,195.00	£ 68,665.00	£ 12,627.00	£ 481,280.00	3	$ 1,730,000.00	$ 1,160,000.00	$ 194,000,000.00	$ 14,4001.00	$ 3,890,000.00
Retailing	49	£ 111,343.00	£ 13,073.00	£ 2,999,951.00	£ 1250.00	£ 1,856,628.00	–	–	–	–	–	–
Telecommunications	–	–	–	–	–	–	1	$ 25,000,000.00	$ 25,000,000.00	NaN	$ 25,000,000.00	$ 25,000,000.00
Tobacco	–	–	–	–	–	–	3	$ 212,000,000.00	$ 5,350,000.00	$ 362,000,000.00	$ 332,500.00	$ 629,000,000.00
Utilities and power generation	1	£ 101,337.00	£ 101,337.01	NaN	£ 101,337.00	£ 101,337.01	2	$ 662,500.00	$ 662,500.00	$ 830,850.00	$ 75,000.00	$ 1250,000.00
Waste management and environmental services	1	£ 137,172.00	£ 137,172.01	NaN	£ 137,172.00	£ 137,172.01	–	–	–	–	–	–
Wholesalers	22	£ 145,238.00	£ 57,171.00	£ 324,569.00	£ 2650.00	£ 1,551,129.00	1	$ 5,500,000.00	$ 5,500,000.00	NaN	$ 5,500,000.00	$ 5,500,000.00
Multinationalism (Financial industry sample only)												
Yes	3	£ 4,730,000.00	£ 4500.00	£ 10,600,000.00	£ 2150.00	£ 23,610,000.00	82	$ 38,200,000.00	$ 6,920,000.00	$ 161,000,000.00	$ 5000.00	$ 1,435,000,000.00
No	5	£ 9,640,000.00	£ 7,671,800.00	£ 6,810,000.00	£ 4,023,600.00	£ 17,219,300.00	17	$ 3,020,000.00	$ 528,124.00	$ 4,800,000.00	$ 5000.00	$ 17,000,000.00
N.A.	5	£ 11,744.00	£ 4500.00	£ 11,341.00	£ 2750.00	£ 24,868.00	20	$ 1,750,000.00	$ 68,469.00	$ 4,480,000.00	$ 5000.00	$ 15,000,000.00

	N	Pearson's r	df	95 % CI Lower	95 % CI Upper	p	N	Pearson's r	df	95 % CI Lower	95 % CI Upper	p
Revenue							84	0.06	82	−0.15	0.28	0.560
Net Assets	12	0.3	10	−0.33	0.75	0.350	116	0.06	114	−0.12	0.24	0.490

Note. NaN indicates that the estimate could not be calculated due to insufficient data.

small sample sizes and missing corporate data restricted the robustness of these findings. While studies like Burns et al. (2024) and Homer and Maume (2024) have used Violation Tracker data to explore enforcement and recidivism in large firms, our study highlights how descriptive insights may be the ceiling when data quality and coverage fall short. This reinforces the need for improved transparency and standardized financial reporting to enable more reliable, predictive analyses of regulatory enforcement.

The findings contribute to corporate crime scholarship by offering new insights into how regulatory frameworks and corporate attributes intersect to shape patterns of offending. For instance, the UK's focus on anti-money laundering deficiencies and the US's emphasis on investor protection violations support theories that enforcement practices and institutional structures are central to understanding corporate offending (Benson & Simpson, 2024). The temporal trends, such as the volatility of tax violations and the rise in anti-money laundering deficiencies, underscore the relevance of life-course criminology in capturing how corporate misconduct evolves in response to changing regulatory landscapes, political pressures, or economic conditions (Blokland et al., 2021).

From a practical perspective, this research highlights the urgent need for improved data accessibility and regulatory transparency. While regression analyses were explored as part of the study, the limitations of the available Violation Tracker data, particularly small sample sizes, and other publicly available data on corporate characteristics, such as missing financial information and inconsistent corporate reporting behavior, led to model instability and hindered reliable interpretation. For example, financial characteristics such as revenue and net assets, or structural attributes like multinational status, did not consistently align with violation types or penalty height in ways that supported meaningful inferential conclusions. These challenges suggest that corporate characteristics alone may be insufficient to explain patterns of regulatory non-compliance when working with sparse or unevenly reported data. These challenges point to a broader need for investment in public data infrastructure. Policymakers and researchers alike would benefit from more standardized, high-quality datasets that allow for the meaningful analysis of corporate behaviour over time. Emerging initiatives, such as Violation Tracker Global,[2] represent a promising step towards more comprehensive coverage of corporate misconduct across jurisdictions and sectors. As such datasets expand and improve, they will provide a more reliable foundation for life-course criminology, cross-national comparisons, and empirically grounded enforcement strategies. In the meantime, descriptive analyses remain a vital tool for identifying enforcement priorities, sectoral vulnerabilities, and jurisdictional differences in practice. By leveraging what is currently available and acknowledging its limitations, this study illustrates both the potential and the constraints of working with open-source regulatory data in the study of corporate crime.

While this study provides valuable insights, several limitations must be acknowledged. Most notably, the Violation Tracker datasets are incomplete. In the UK sample, for instance, over 2900 of the 3046 financial violations lacked parent company identifiers. Reporting biases further affect generalizability, as industries with greater regulatory scrutiny may appear overrepresented (Ferwerda & Kleemans, 2019). Moreover, since some entries in the Violation Tracker may represent multiple incidents bundled into a single enforcement action, the data may underrepresent the actual number of distinct violations in certain cases. This aggregation could slightly limit the precision of frequency-based analyses. Additionally, key financial information such as revenue and net assets was frequently unavailable, especially in the US. These gaps are not randomly distributed – they disproportionately affect specific industries and company types, likely reflecting structural differences in transparency and reporting practices. The absence of a centralized reporting system in the US further exacerbates this issue, making financial data collection more challenging than in the UK. While regression techniques were applied, issues such as high missingness in corporate characteristics, small sample sizes - especially in the UK dataset - and unstable estimates limited the interpretative value of these models. This reflects the challenges of using open-source datasets like the Violation tracker for inferential statistics, though descriptive insights into sectoral trends and corporate characteristics remain highly valuable. Other researchers, such as Homer and Maume (2024), have navigated these challenges differently, undercsoring the importance of case-specific data conditioning and research aims. Importantly, the datasets reflect enforcement actions rather than actual levels of violations, meaning that the analysis is limited to what has been detected, reported and acted upon, rather than the broader, 'hidden' landscape of corporate violations. Nevertheless, this empirical focus remains critical, as it enables the identification of patterns and mechanisms that warrant further investigation into how corporate offending behaviours may emerge and persist over time, and descriptive analyses as conducted in this study remain a practical first step towards mapping vulnerabilities, enforcement gaps, and jurisdictional differences in regulatory response.

Despite these challenges, the study demonstrates that open-source regulatory data offers valuable insights into corporate offending, especially when used descriptively. Future research could explore integrating Violation Tracker data with other sources – such as media reports, firm filings, or corporate governance databases – to build richer, multi-layered datasets. Additionally, as the Violation Tracker Global expands to include over 50 countries, comparative work across legal systems and regulatory cultures could shed new light on enforcement patterns and their effectiveness.

Funding declaration

This research was supported by the NWO SGW Open Competition Law and Public Administration 2021 grant, titled "Examining corporate noncompliance and regulatory enforcement actions through a longitudinal life-course lens" (Grant number: 406.21.RB.012).

CRediT authorship contribution statement

Frederike Oberheim: Writing – review & editing, Writing – original draft, Visualization, Supervision, Software, Resources, Project administration, Methodology, Formal analysis, Data curation, Conceptualization. **Jon Davies:** Writing – review & editing, Writing – original draft, Visualization, Supervision, Software, Resources, Project administration, Methodology, Formal analysis, Data curation, Conceptualization. **Celine Giese:** Writing – review & editing, Visualization, Software, Resources, Methodology, Investigation, Formal analysis, Data curation. **Marieke Kluin:** Writing – review & editing, Resources, Methodology, Investigation, Conceptualization. **Nicholas Lord:** Writing – review & editing, Resources, Methodology, Investigation, Conceptualization.

Declaration of competing interest

None.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jcrimjus.2025.102431.

[2] At the time of writing, Violation Tracker Global covers fifty-two countries where large corporations commit regulatory infringements, so it is similar to the UK and US versions. The 'Global' dataset was first made available towards the end of this study in late 2024.

References

Achim, M., & Borlea, S. (2020). Economic and political determinants of economic and financial crime. In M. Achim, & S. Borlea (Eds.), *Economic and financial crime: Corruption, shadow economy and money laundering*. Utrecht: Springer.

Alaheto, T. (2010). The wealthy white-collar criminals: Corporations as offenders. *Journal of Financial Crime, 17*(3), 308–320.

Anderson, J. M., & Waggoner, I. (2014). *The changing role of criminal law in controlling corporate behavior*. Santa Monica: The RAND Corporation.

Ashton, J., Burnett, T., Diaz-Rainey, I., & Ormosi, P. (2021). Known unknowns: How much financial misconduct is detected and deterred? *Journal of International Financial Markets, Institutions and Money, 74*, 101389.

Ayres, I., & Braithwaite, J. (1992). *Responsive regulation: Transcending the deregulation debate*. New York: Oxford University Press.

Baldwin, R., & Black, J. (2016). Driving priorities in risk-based regulation: What's the problem? *Journal of Law and Society, 43*, 565–595.

Bank of England. (2024). *Supervision* [online]. available at https://www.bankofengland.co.uk/prudential-regulation/supervision (accessed 19th December 2024).

Bartlett, D., Ransley, J., Forrester, L., & Middendorp, K. (2020). Corporate crime in Australia: The extent of the problem. *Trends and Issues in Crime and Criminal Justice, 613*, 1–17.

Baucus, M. S., & Near, J. P. (1991). Can illegal corporate behavior be predicted? An event history analysis. *Academy of Management Journal, 34*, 9–36.

Benson, M., & Simpson, S. S. (2024). *White-collar crime: An opportunity perspective* (4th ed.). New York: Routledge.

Bhaskar, K., Flower, J., & Sellers, R. (2019). *Financial failures and scandals: From Enron to Carillion*. Routledge.

Black, J. (2010). Risk-based regulation. Choices, practices and lessons being learnt. In OECD (Ed.), *Risk and regulatory policy. Improving the governance of risk* (pp. 185–236). Paris: OECD Publishing.

Blankenship, M. B. (1993). *Understanding corporate criminality*. New York: Routledge.

Blokland, A. A. J., Kluin, M. H. A., & Huisman, W. (2021). Life-Course Criminology and Corporate Offending. In D. D. Sokol, & B. van Rooij (Eds.), *The Cambridge Handbook of Compliance* (pp. 684–706). Cambridge, UK: Cambridge University Press.

Braithwaite, J. (1984). *Corporate crime in the pharmaceutical industry*. London: Routledge & Kegan Paul.

Burns, R. G., Lynch, M. J., & Smith, K. (2024). Sanctioning corporate crime: Fines received by the 50 top revenue generating companies in the US. *Crime, Law and Social Change, 82*, 1131–1155.

Campbell, L., & Clancy, Á. (2024). The principled and practical limits to unexplained wealth orders. *University of Western Australia Law Review, 52*(1), 29–52.

Cihak, M., & Podpiera, R. (2008). Integrated financial supervision: Which model? *North American Journal of Economics and Finance, 19*(2), 135–152.

City of London Corporation. (2023). *Our global offer to business: London and the UK'S competitive strengths supporting economic growth*. London: City of London Corporation.

Clinard, M. B., & Yeager, P. C. (1980). *Corporate Crime*. New York: Free Press.

Corruption Watch UK. (2019). *Corporate crime gap: How the UK lags the US in policing corporate financial crime* [online]. available at: https://drive.google.com/file/d/1BGhhq2XdA8hrsZDeO0g6arDWC4ImHMby/view?pli=1 (accessed 12th December 2024).

Dalton, D. R., & Kesner, I. F. (1988). On the dynamics of corporate size and illegal activity: An empirical assessment. *Journal of Business Ethics, 7*, 861–870.

FCA. (2022). *FCA fines HSBC Bank plc £63.9 million for deficient transaction monitoring controls* [online]. available at https://www.fca.org.uk/news/press-releases/fca-fines-hsbc-bank-plc-deficient-transaction-monitoring-controls (accessed 11th December 2024).

FCA. (2024). *Supervision* [online]. available at: https://www.fca.org.uk/about/how-we-regulate/supervision (accessed 19th December 2024).

FDIC.gov. (2024). *About* [online]. available at https://www.fdic.gov/about (accessed 19th December 2024).

Federal Reserve. (2024). *Supervision & regulation* [online]. available at https://www.federalreserve.gov/supervisionreg.htm (accessed 19th December 2024).

Ferwerda, J., & Kleemans, E. (2019). Estimating money laundering risks: An application to business sectors in the Netherlands. *European Journal of Criminal Policy and Research, 25*, 45–62.

FinCEN.gov. (2024). *FinCEN's legal authorities* [online]. https://www.fincen.gov/resources/fincens-legal-authorities.

Gadinis, S., & Mangels, C. (2016). Collaborative gatekeepers. *Washington and Lee Law Review, 73*(2), 797–914.

Garrett, B. L. (2014). *Too big to jail: How prosecutors compromise with corporations*. Boston: Harvard University Press.

Geis, G. (1962). Toward a delineation of white-collar offenses. *Sociological Inquiry, 32*, 160–171.

Gottschalk, P., & Gunnesdal, L. (2018). *White-collar crime in the shadow economy: Lack of detection, investigation and conviction compared to social security fraud*. Springer Nature.

GOV.UK. (2024a). *Competition and Markets Authority* [online]. available at https://www.gov.uk/government/organisations/competition-and-markets-authority (accessed 19th December 2024).

GOV.UK. (2024b). *HM revenue & customs* [online]. available at https://www.gov.uk/government/organisations/hm-revenue-customs (accessed 19th December 2024).

Greenman, C., Zupancic, K., Davis, K., & Healy, C. (2023). Penalties for fraud in the pharmaceutical industry: A financial and reputational analysis. *Journal of Accounting, Ethics & Public Policy, JAEPP, 24*(1), 21.

Gunningham, N., Kagan, R. A., & Thornton, D. (2004). Social license and environmental protection: Why businesses go beyond compliance. *Law & Social Inquiry, 29*(2), 307–341.

Heese, J., Pérez-Cavazos, G., & Peter, C. D. (2022). When the local newspaper leaves town: The effects of local newspaper closures on corporate misconduct. *Journal of Financial Economics, 145*(2), 445–463.

Hindmoor, A., & McConnell, A. (2013). Why didn't they see it coming? Warning signs, acceptable risks and the global financial crisis. *Political Studies, 61*(3), 543–560.

Homer, E. M., & Maume, M. O. (2024). The deterrent effect of federal corporate prosecution agreements: An exploratory analysis. *Journal of White Collar and Corporate Crime, 5*(1), 15–27.

Huisman, W. (2016). Criminogenic organizational properties and dynamics. In S. R. Van Slyke, M. L. Benson, & F. T. Cullen (Eds.), *The Oxford handbook of white-collar crime* (pp. 435–462). New York: Oxford University Press.

Huisman, W. (2019). Blurred lines: Collusions between legitimate and illegitimate organizations. In M. Rorie (Ed.), *The handbook of white-collar crime* (pp. 139–158). Jon Wiley & Sons.

Hunter, B. (2021). Corporate criminal careers: Thinking about organizational offending. *Journal of Theoretical & Philosophical Criminology, 13*.

Hutter, B. (2005). *The attractions of risk-based regulation: Accounting for the emergence of risk ideas in regulation. CARR discussion paper, 33*.

Hutter, B. M. (1989). Variations in Regulatory Enforcement Styles. *Law & policy, 11*(2), 153–174.

Karpoff, J. M., Koester, A., Lee, D. S., & Martin, G. S. (2017). Proxies and Databases in Financial Misconduct Research. *The Accounting Review, 92*(6), 129–163.

Kedia, S., Luo, S., & Rajgopal, S. (2017). *Profiling: Does past compliance record predict financial reporting risk?* Columbia Business School.

Kluin, M. H. A., Blokland, A. A., Huisman, W., & Peeters, M. P. (2025). Longitudinal patterns of regulatory violations in chemical corporations. *Crime, Law and Social Change, 83*(1), 1–31.

Kluin, M. H. A., Blokland, A. A. J., Huisman, W., Peeters, M. P., Wiering, E., & Jaspers, S. (2018). Patronen in regelovertreding in de chemische industrie [Patterns of Regulatory Violations in Chemical Corporations]. *Tijdschrift Voor Criminologie [Journal of Criminology], 60*(4), 421–456.

Laufer, W. S. (2006). *Corporate bodies and guilty minds: The failure of corporate criminal liability*. Chicago: University of Chicago Press.

Li, X., & Raghunandan, A. (2021). *Institutional ownership and workplace misconduct: Evidence from federal labor law violations* (Available at SSRN 3460126).

Li, Y. (2010). The case analysis of the scandal of enron. *International Journal of Business and Management, 5*(10), 37–41.

Masciandaro, D., & Quintyn, M. (2016). The governance of financial supervision: Recent developments. *Journal of Economic Surveys, 30*(5), 982–1006.

May, P., & Winter, S. (1999). Regulatory enforcement and compliance: Examining Danish agro-environmental policy. *Journal of Policy Analysis and Management, 18*(4), 625–651.

Meester, J. J., Kluin, M. H. A., Blokland, A. A., Huisman, W., Schuur, M. C., & Wassenburg, S. I. (2024). Corporate Offending in Dutch Inland Shipping: A Trajectory Analysis. *European Journal of Criminology*, 14773708241266463.

Miller, S. M. (2024). Non-financial Corporate Misconduct and Earnings Restatements. *Accounting, Finance & Governance Review, 32*.

Neukirchen, D., Köchling, G., & Posch, P. N. (2023). Enforcement of corporate misconduct during democratic and republican administrations. *Finance Research Letters, 55*, Article 103921.

OCC.gov. (2024). *Organization* [online]. available at https://www.occ.treas.gov/about/who-we-are/organizations/index-organization.html (accessed 19th December 2024).

Orudzheva, L., Salimath, M. S., & Pavur, R. (2020). Vortex of corruption: Longitudinal analysis of normative pressures in top global companies. *Journal of Business Ethics, 163*, 529–551.

Parker, C., & Nielsen, V. L. (2009). Corporate compliance systems: Could they make any difference? *Administration and Society, 41*(1), 3–37.

Prechel, H., & Morris, T. (2010). The effects of organizational and political embeddedness on financial malfeasance in the largest US corporations: Dependence, incentives, and opportunities. *American Sociological Review, 75*(3), 331–354.

Prechel, H., & Zheng, L. (2016). Do organizational and political–legal arrangements explain financial wrongdoing? *The British Journal of Sociology, 67*(4), 655–677.

Pusch, N., & Holtfreter, K. (2021). Individual and organizational predictors of white-collar crime: A Meta-analysis. *Journal of White-collar and Corporate Crime, 2*(1), 5–23.

Raghunandan, A. (2021). Financial misconduct and employee mistreatment: Evidence from wage theft. *Review of Accounting Studies, 26*(3), 867–905.

Reiss, A. (1984). Selecting strategies of social control over organizational life. In K. Hawkins, & J. M. Thomas (Eds.), *Enforcing regulation*. Boston: Kluwer-Nijhoff Publishing.

Richards, H. (2013). Influence and incentives in financial institution supervision. In A. Kellermann, J. De Haan, & F. De Vries (Eds.), *Financial supervision in the 21st century* (pp. 73–102). Amsterdam: Springer.

SEC.gov. (2024). *Mission* [online]. available at https://www.sec.gov/about/mission (accessed 19th December 2024).

Serious Fraud Office. (2024). *About us* [online]. available at: https://www.sfo.gov.uk/about-us/ (accessed 19th December 2024).

Shevchenko, A. (2021). Do financial penalties for environmental violations facilitate improvements in corporate environmental performance? An empirical investigation. *Business Strategy and the Environment, 30*(4), 1723–1734.

Simpson, S. S. (2002). *Corporate crime, law, and social control*. Cambridge: Cambridge University Press.

Simpson, S. S. (2019). Reimagining Sutherland 80 years after White-collar Crime. *Criminology, 57*(2), 189–207.
Simpson, S. S., & Koper, C. S. (1992). Deterring Corporate Crime. *Criminology, 30*(3), 347–376.
Simpson, S. S., & Koper, C. S. (1997). The changing of the guard: Top management characteristics, organizational strain, and antitrust offending. *Journal of Quantitative Criminology, 13*, 373–404.
Simpson, S. S., Layana, M. C., & Galvin, M. A. (2025). Patterns of corporate life-course offending. In M. A. Galvin, & W. S. Laufer (Eds.), *The firm as victim and offender*. New Brunswick: Advances in Criminological Theory.
Simpson, S. S., & Schell, N. (2009). Persistent heterogeneity or state dependence? An analysis of occupational safety and health act violations. In S. S. Simpson, & D. Weisburd (Eds.), *The criminology of white-collar crime*. New York: Springer Science and Business Media LLC.
Smith, F. (2010). *Madoff Ponzi scheme exposes "the myth of the sophisticated investor". 40* pp. 215–284). University of Baltimore Law Review.
Soltes, E. (2019). The frequency of corporate misconduct: Public enforcement versus private reality. *Journal of Financial Crime, 26*(4), 923–937.
Sutherland, E. H. (1983). *White collar crime. The uncut version*. New Haven: Yale University Press.
The Independent. (2020). *£10m property empire seized in McMafia wealth order from businessman 'linked to organised crime'* [online]. available at: https://www.independent.co.uk/news/uk/home-news/mcmafia-wealth-order-leeds-businessman-property-mansoor-mahmood-hussain-b856742.html [accessed 11th December 2024].
US Department of Justice. (2021). *Deutsche bank agrees to pay over $130 million to resolve foreign corrupt practices act and fraud case* [online]. available at: https://www.justice.gov/opa/pr/deutsche-bank-agrees-pay-over-130-million-resolve-foreign-corrupt-practices-act-and-fraud (accessed 25th November 2024).
US Department of Justice. (2022). *Danske bank pleads guilty to fraud on U.S. banks in multi-billion dollar scheme to access the U.S. financial system* [online]. available at https://www.justice.gov/opa/pr/danske-bank-pleads-guilty-fraud-us-banks-multi-billion-dollar-scheme-access-us-financial (accessed 11th December 2024).
Van der Lecq, F. (2009). Publiek en privaat toezicht op financiele markten [public and private supervision of financial markets]. In A. Mein, et al. (Eds.), *Toezicht door private partijen: Panacee voor alle kwalen? [supervision by private parties: A panacea for all ills?]*. Rotterdam: Erasmus Instituut Toezicht & Compliance.
Violation Tracker. (2024). *Violation tracker* [online]. available at: https://violationtracker.goodjobsfirst.org/ (accessed 10th October 2024).
Violation Tracker UK. (2024). *Violation tracker UK* [online]. available at: https://violationtrackeruk.goodjobsfirst.org/ (accessed 10th October 2024).
Walburg, C. (2015). The measurement of corporate crime: An exercise in futility? In J. van Erp, W. Huisman, & G. Vande Walle (Eds.), *The Routledge handbook of white-collar and corporate crime in Europe* (pp. 25–38). Abingdon: Routledge.
Wang, X., & Holtfreter, K. (2012). The effects of corporation-and industry-level strain and opportunity on corporate crime. *Journal of Research in Crime and Delinquency, 49*(2), 151–185.
Wu, Y., van Rooij, B., & Kluin, M. (2023). *Organizational Life-cycle Analysis of Corporate Offending: Insights into how Changes in Business Cycles Interact with Regulatory Oversight to Shape Compliance and Violations. Crime, Law and Social Change, 81*, 163–183.
Yeoh, P. (2020). Bank's vulnerabilities to money laundering activities. *Journal of Money Laundering Control, 23*(1), 122–135.